## {In Archive} hydraulic fracturing in the news

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# Hydraulic Fracturing Poses Low Risk for Causing Earthquakes, But Risks Higher for Wastewater Injection Wells -

http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=13355 Full Report - http://www.nap.edu/catalog.php?record\_id=13355 [Free download]

## Guidance for Oil and Gas Hydraulic Fracturing /UIC Program

Notice of the EPA announces a public meeting to discuss a draft guidance document ``Permitting Guidance for Oil and Gas Hydraulic Fracturing Activities Using Diesel Fuels (Underground Injection Control Program Guidance #84)." The meeting is scheduled for June 29, 2012, in Washington, D.C. Pre-registrations are due June 28, 2012. Comments are due July 9, 2012. Contact: Sherri Comerford; EPA, Office of Ground Water and Drinking Water; (202-564-4639) http://eshist.bna.com/cgi-bin/eshfed?2012-14786

## Occupy Raleigh opposes fracking bill

Associated Press State Wire: North Carolina (NC) - Monday, June 18, 2012 RALEIGH, N.C. (AP) — Members of Occupy Raleigh are planning a rally outside the Executive Mansion in Raleigh to encourage Gov. Beverly Perdue to veto a bill that allows fracking in North Carolina.

The state House has approved a bill that allows hydraulic fracturing drilling and returned it to the Senate for consideration of minor amendments. The method involves injecting a drilled well with chemicals, water and sand at high speed to break up shale rock deep underground and free trapped natural gas.

Occupy Raleigh members say they'll organize a response at 6 p.m. Monday at the Governor's Mansion.

Environmentalists worry the drilling has not been thoroughly studied and could lead to groundwater contamination, earthquakes and flammable drinking water. Supporters say fracking will help the state harvest domestic energy and create new jobs.

## Group against fracking gathers at Ohio Statehouse

Associated Press State Wire: Ohio (OH) - Sunday, June 17, 2012

COLUMBUS, Ohio (AP) – Advocates against hydraulic fracturing in Ohio are gathering at the Statehouse for a rally and march in support of banning the practice.

Organizers of the "Don't Frack OH" event say they expect hundreds of people to gather Sunday afternoon for a mock demonstration of legislation being passed against hydraulic fracturing .

Hydraulic fracturing is the high-pressure oil and gas drilling technique also known as fracking. Gov. John Kasich (KAY'-sihk) recently signed into law new regulations on fracking in the Utica and Marcellus shale formations running under sections of the state. Opponents say the practice has a negative impact on the environment.

The rally and march conclude a weekend of events that included workshops on activism against fracking.

## Mud too wet to dump - Hydraulic fracturing produces a byproduct landfills just don 't want

Pratt Tribune, The (KS) - Saturday, June 16, 2012 Author: Gale Rose, reporter@pratttribune.com

Truckloads of mud from oil well fracturing are on an odyssey to find an unloading location.

The companies hauling the mud are trying to dispose of the product and are looking at landfills as a potential dumping area, but most landfills, including the Pratt County Landfill, are saying 'no' to the mud.

The problem with the mud is moisture. Fracking produces lots of mud with high water content. A drier mud might be accepted, but fracking byproducts are very wet.

"That's just one of the rules of the landfill. We just don't take liquid," said Dean Staab, director of Environmental Services for Pratt County.

A rule of thumb for the landfill is if material is placed in a paint filter and fluid runs out it is too wet to put into the landfill. Staab said.

The mud from the fracking process does not pass this test so Pratt County doesn't want the mud at this time.

One company had approached the Reno County Landfill about dumping mud at their facility and they were denied. When Staab, who hasn't actually seen the mud product, heard about Reno County turning down the mud, he turned them down when they approached Pratt about dumping.

The Reno County Landfill has a liner that makes their landfill more secure from leakage into the soil. Pratt County doesn't have that kind of a liner so Staab decided to turn them down for the time being.

"If they (Reno County) have concerns about it I definitely have concerns about it," Staab said.

During a recent Kansas Department of Health and Environment meeting in Garden City, landfill operators were made aware of the situation.

While mud dumping is not a major issue in Pratt County now, as oil exploration expands north through the use of fracking, it could become a major issue in the county.

Mud-hauling companies have not had a lot of success getting rid of their product at the landfills but they do have a couple of options that could work.

The first is to just let the mud dry out by spreading it on the ground for a few days then loading it up and hauling it to a landfill as dry material.

The landfill would probably have to get special waste authorization from Kansas Department of Health and Environment to accept the mud before it could be disposed of at a landfill.

Staab said he would not object to having the mud if it was dry. If they take the wet mud it would leave them open to other types of liquid such as oil and other products that could be absorbed into the soil and possibly get into the water table so fluids are just out.

Small amounts of fluid, like a little milk left over in a milk container, are not big enough to soak into the ground very far so they are OK.

Another option for the mud haulers is to spread it out in area fields. The mud contains some chlorides but once it is spread out in a field the amount is so small it is not an issue, Staab said.

Caption: The new pit at the Pratt County Landfill is open for business and accepting refuse but it will not be a depository for mud from the fracturing process for oil wells. The mud has too much moisture to go to the landfill. PHOTO BY GALE ROSE

## Boulder County Planning Commission to consider oil, gas issues Wednesday

Daily Times-Call, The (Longmont, CO) - Saturday, June 16, 2012

Author: John Fryar Longmont Times-Call

If you go

What: The Boulder County Planning Commission is to discuss and hold a public hearing on drafts of proposed amendments to Boulder County Comprehensive Plan provisions relating to oil and gas exploration on public and privately owned lands in unincorporated parts of the county.

When: The commission's meeting starts at 1:30 p.m. Wednesday. The oil-and-gas discussion and hearing is the seventh item on the afternoon's agenda, although the panel may not get to that item until 3 or 3:30 p.m.

Where: Boulder County Courthouse's third-floor hearing room, 1325 Pearl St., Boulder.

Further information: Visit the Boulder County Land Use Department's Oil and Gas Development web page, http://bouldercounty.org/dept/landuse/pages/oilgas.aspx. For information about future public involvement opportunities, contact the county's Jim Webster at 720-564-2600 or jbwebster@bouldercounty.org.

BOULDER -- Boulder County's Planning Commission, the nine-member panel that oversees the Boulder County Comprehensive Plan, is scheduled on Wednesday to discuss drafts of amendments to update that document's provisions about oil and gas drilling and production in unincorporated areas of the county.

Those comp plan revisions, if formally adopted by the Planning Commission during a subsequent meeting tentatively set for July 18, could then become part of the basis for revising the Boulder County Land Use Code's rules and regulations about oil and gas exploration and production later this year.

Some of the Boulder County Comprehensive Plan's current goals and policies relating to oil and gas activities are more than 30 years old. County officials have said those provisions may not be able to adequately address the impacts of a potential increase in oil and gas production activities in areas outside the boundaries of the county's cities and towns.

Of particular concern, Boulder County officials have said, are the possible public health and environmental impacts of the practice of hydraulic fracturing -- injecting sand, water and chemicals to free up deep-underground oil and gas deposits -- together with horizontal drilling, in which a well is bored down to the oil and gas-containing formation and then angled to run into and parallel with that formation.

Hydraulic fracturing is not new and has been used for more than 50 years, the county Land Use Department staff said in a memo for Wednesday's Planning Commission meeting.

"What has changed is some of the additives used in the water that is injected into the wells to induce a more effective fracturing of the oil- and gas-bearing rock to release and capture those resources," the staff wrote in that memo.

The Land Use staff reported that as of early this year, there were 345 actively operating oil and gas wells in Boulder County, none of which has yet employed horizontal drilling technology. By comparison, the staff said, there are more than 17,000 operating wells in Weld County.

Under current Colorado Oil and Gas Conservation Commission rules, up to five wells can be drilled per 160-acre quarter section, or 20 wells per square mile, the county staff reported. The county staff members said that could add up to as many as 1,800 additional wells on unincorporated land in Boulder County, if such wells do get drilled. They said that would primarily happen in an area bounded by Longmont on the north, the Boulder County-Weld County boundary line on the east, The Erie-Louisville-Lafayette area on

the south, and North 75th and North 76th streets and the Colo. 119 Diagonal Highway on the west.

That eastern Boulder County region, which sits over a larger natural gas deposit known as the Wattenberg Field, "contains a mixture of residential subdivisions, farms and single-family homes on rural parcels" as well as government-owned open space, the county staff wrote in its memo to the Planning Commission.

"Numerous water courses, such as irrigation and supply ditches and creeks as well as ponds, reservoirs and lakes are found here," the staff wrote. "Many residences rely on wells and on-site waste disposal systems for their water and sanitation needs. Several rare plant areas, significant natural communities, critical wildlife habitats, environmental conservation areas and other environmental features of importance" lie within the eastern county region.

Accelerated oil and gas drilling also would have an impact on the area's roads and highways, the county staff said: "Estimates based on research conducted by the county Transportation Department suggest that installing and servicing 1,800 wells could generate over 3,300,000 vehicle trips, most of which would be heavy trucks bringing equipment, water, sand and other materials necessary for well development to the drilling sites."

The Planning Commission's Wednesday afternoon discussion of draft comprehensive-plan amendments suggested by the county staff is to include a public hearing.

John Frvar can be reached at 303-684-5211 or jfryar@times-call.com.

Editorial: Ban hydrofracking in New York until it has been peer -reviewed and deemed safe Saratogian, The (Saratoga Springs, NY) - Saturday, June 16, 2012 Author: Staff Writer

Gov. Andrew Cuomo is now flailing about, hoping to find a path of least resistance out of the hydrofracking thicket into which he plunged himself headlong.

How he got there in the first place is an interesting thing.

New techniques promised to unlock huge reserves of natural gas in the Marcellus Shale, a geologic formation deep underground beneath Pennsylvania, New York, West Virginia and Ohio said to contain enough natural gas to supply the East Coast for up to 50 years.

So perhaps he was a victim of the euphoria that came with what can only be described as a modern-day energy rush. Early in his administration, Cuomo backed the controversial gas-drilling technique as a potential economic boon to New York, especially since many hard-pressed upstate areas sit over those natural gas reserves.

But that euphoria came before an impressive investigative series by The New York Times found that many scientists and regulators were increasingly questioning the environmental safety of hydrofracking, which had a running headstart in places like Oklahoma and Pennsylvania.

Potential environmental harms identified by the Times include the use of known carcinogens in fluids injected into wells, the creation of up to 4 million gallons of wastewater per well that is often inadequately treated and the discharge of radioactive wastewater into surface waters, some of which are sources of municipal drinking water.

A full-scale energy rush could result in the deep puncturing of more than 50,000 square miles in 30,000 locations, each to be pumped full of some 4 million gallons of water, chemicals and sand.

And that euphoria came before more than an estimated 20,000 public comments on the proposal to permit hydrofracking were submitted to the state Department of Environmental Conservation.

In short, things didn't work out quite the way Cuomo envisioned.

So now he's launched a trial balloon to see if hydrofracking can be allowed, but strictly limited, in municipalities that want it within designated portions of Broome, Chenango, Steuben and Tioga counties.

In our view, that balloon won't float.

Either the technique can be done safely and can be regulated to ensure it's done safely, or it can't.

And the fact of the matter is, right now we just don't know and we're not likely to know for a pretty long time.

As we have previously said, the gas drilling industry to date has received a pass on the sort of regulatory scrutiny the public has a right to expect from its government.

Hydrofracking was granted presumptive approval by the federal government in 2005 when the Environmental Protection Agency exempted the practice from federal regulation, an exemption known as the "Halliburton loophole," after the energy company.

Doubts about the safety of hydrofracking cannot be quelled by exemption. The technique requires extensive study, including sophisticated modeling that must be subject to scientific peer review. A good hard look at what's going on underneath the surface of those states that rushed headlong into the hydrofracking experiment would be a good idea, too.

This will require a commitment of money.

But most of all it will take time and patience, for scientific research is not the sort of thing that is easily rushed.

To allow hydrofracking in desperate locales while the question of safety is pending is the kind of baby-splitting solution you might expect from a politician who suddenly discovers he's in an unhappy position. It makes no sense given the stakes. The potential fouling of water supplies is too serious to accept a kind of economic/scientific relativism in which poor communities might have one answer for throwing the dice, while New York City, for instance, which has had its watershed pointedly exempted from drilling, quite definitely has another.

New York state should impose a complete ban on hydrofracking until it has been fully studied, peer-reviewed and found to be safe for the environment under practical regulation.

#### Board of Oil awards grant to Montana Tech

Sidney Herald (MT) - Saturday, June 16, 2012

It's the hydraulic fracturing technique that makes the Bakken and Three Forks Formations so dynamic.

Demand for materials used in the process is high, so there could be potential for the state of Montana to get involved in that part of the booming oil business.

The Montana Board of Oil and Gas Conservation on Wednesday awarded the petroleum engineering department at Montana Tech in Butte \$126,270 to propel a statewide survey of potential sand formations that could be developed for commercial use in the fracking process.

Sand is the largest contributor to proppant, a mixture of sand and fluid that holds the fractures open during hydraulic fracturing so that oil and gas can flow out of the formation.

"It turns out there are huge quantities of this material," John Getty, petroleum engineer with Montana Tech, told the board. "We believe strongly that there are formations within the state of Montana that could produce proppant-grade material."

Commercial activity prospects for man-made ceramic and naturally-occuring sand look promising. Material that's already been found is up to commercial grade; other material isn't at the same level, Getty said, but has still garnered interest from private companies. It's a booming business already as materials are shipped in daily from overseas and across the country.

Staff at Montana Tech have examined dozens of samples from around the state, Getty said, and it appears it is well furnished with its own mines that could produce a lot of revenue. Mines already exist in Nebraska and Wisconsin, but because of shipping costs, the price for the materials can triple.

"As of today there are no fully developed proppant mines that I'm aware of in the state of Montana," Getty said, calling the potential commercial activity a "substantial economic input."

According to information from oil service giant Halliburton, an estimated 6 billion pounds of proppants are expected to be pumped into the ground in the Rocky Mountain region, of which 75 percent is sand. The board approved to fund the first part of the study, which is to survey potential sand mines and analyze the material to determine whether it possesses commercial value, then begin developing a map of all the mines. Subsequent findings will be published online with information so companies can decide whether to contact the landowner to pursue interests.

"It sounds like an interesting project," board administrator Tom Richmond said. "It's worthwhile doing."

#### Senate panel to hear pros, cons of new 'fracking' air rules

Jean Chemnick, E&E reporter Energy & Environment News Daily Published: Monday, June 18, 2012

An Environment and Public Works subcommittee will hear testimony tomorrow on the first-ever national standards to limit air pollution from hydraulic fracturing.

The Senate Clean Air and Nuclear Safety Subcommittee will hear from industry, environmentalists and U.S. EPA air chief Gina McCarthy about the rule, which the agency finalized in April.

The rule requires all new or refracked wells to use combustion to reduce emissions of volatile organic compounds (VOCs) effective immediately. These operations would be required to move to "green completion" technology, which reduces VOCs together with nitrogen oxides and methane, by Jan. 1, 2015, at the latest.

Environmentalists praised the EPA rule as important to ensuring that natural gas is produced in an environmentally friendly way. But industry continues to ask for more time to phase in emissions reductions and for changes that would exempt many producers from having to use green completions at all.

Industry and EPA disagree on how much green completion technology will cost and on whether it should be mandated for all "fracking" operations or only those that vent streams that have a high proportion of VOCs as opposed to methane.

Some industry representatives have accused EPA of using a shortcut method of regulating greenhouse gas emissions from fracking by requiring methane-heavy operations to limit their emissions, too.

The American Petroleum Institute and others have said that the green completion requirement will cost \$180,000 per well. EPA has put the cost at \$33,000.

Schedule: The hearing is tomorrow at 10 a.m. in 406 Dirksen.

Witnesses: Gina McCarthy, assistant administrator for the Office of Air and Radiation, U.S. EPA; Fred Krupp, president, Environmental Defense Fund; John Corra, director, Wyoming Department of Environment Quality; Tisha Conoly Schuller, president and CEO, Colorado Oil & Gas Association; Darren Smith, environmental manager, Devon Energy Corp.; and William Allison V, director, air pollution control division, Colorado Department of Public Health.

## Senate panel to review earthquake risks from drilling projects

Gabriel Nelson, E&E reporter Energy & Environment News Daily Published: Monday, June 18, 2012

Members of the Senate Energy and Natural Resources Committee will meet this week to discuss a new report released Friday that looks at the likelihood of tremors being caused by oil and gas production, geothermal heat and underground injection of carbon dioxide, all of which rely on drilling wells thousands of feet beneath the Earth's surface.

The report from the National Research Council, which Senate Energy Chairman Jeff Bingaman (D-N.M.) requested two years ago, says hydraulic fracturing of underground shale formations is not likely to cause major earthquakes, but there is a greater risk of tremors from the other activities.

The report calls for "best practices" to avoid earthquakes and to respond to them if they occur.

"No mechanisms are currently in place for efficient coordination of governmental agency response to seismic events that may have been induced," the report says, and "no best practices protocol for addressing induced seismicity is generally in place for each energy technology" (Greenwire, June 15).

Though a damaging earthquake has not been linked to these practices, Bingaman said when he called for the report that tremors could shake confidence in energy projects. That came true earlier this year when U.S. Geological Survey scientists released research linking seismic activity in the Midwest to the underground injection of waste from natural gas drilling.

Environmental activists who oppose hydraulic fracturing, or fracking, started citing tremors as a reason to oppose the practice.

Robert Dillon, a spokesman for ranking member Lisa Murkowski (R-Alaska) and committee Republicans, said there may be some concerns about the underground injection of wastewater or carbon dioxide, but those can be managed.

"To try to paint this as a reason to halt the practice of fracking, that's just part of the ongoing anti-fossil fuel campaign by some groups," he said. "We'll have the hearing and see where it goes, but I don't think you're going to hear testimony that says fracking has anything to do with that."

Shale gas may be the hot topic on Capitol Hill, but tomorrow's hearing promises to go well beyond that. Joining two expert geologists and a science adviser to the U.S. Geological Survey is Susan Petty, president and chief technology officer of geothermal energy developer Altarock Energy Inc.

With backing from the Internet giant Google Inc., Seattle-based Altarock is working on a \$43 million project to draw energy from the heat of a dormant volcano in Oregon. This summer, the company plans to pump 24 million gallons of water into the volcano to create tiny fractures in the rock and release more heat (Greenwire, Jan. 16).

Water could be circulated down to depths of up to 10,000 feet and turned into steam, which would run turbines and generate electricity. The company says the technique could provide clean power around the clock at a competitive price, but it has been dogged by concerns that its technology will cause earthquakes.

The administration has let these sorts of projects move forward.

This April, the Bureau of Land Management approved Altarock's demonstration project, finding a low risk that the seismic events would be felt by people in nearby La Pine, Ore., "and an even lower risk that any damaging seismic events could occur."

Schedule: The hearing is tomorrow at 10 a.m. in 366 Dirksen.

Witnesses: Murray Hitzman, economic geology professor, Colorado School of Mines; William Leith, senior

science adviser for earthquake and geologic hazards, U.S. Geological Survey; Susan Petty, president and chief technology officer, Altarock Energy Inc.; and Mark Zoback, geophysics professor, Stanford University.

#### Man-made earthquakes -- should there be a law?

Mike Soraghan, E&E reporter Energywire Published: Monday, June 18, 2012

It's not illegal to cause an earthquake.

You can't contaminate groundwater, pollute the air or poison endangered species. But federal environmental laws impose no penalty for setting off a seismic rupture that collapses chimneys or buckles roads.

Still, when humans make the ground shake with activities tied to oil and gas drilling, or by injecting a power plant's carbon dioxide emissions underground, it tends to make the neighbors antsy. And a study issued late last week by the National Research Council says that industry and regulators could be doing more to prevent earthquakes (Greenwire, June 15).

"All of them should be talking together and coordinating," said Murray Hitzman, the Colorado School of Mines professor who chaired the study on man-made earthquakes for the council, which part of the National Academies. For example, they could check for fault lines before pumping toxic waste tied to oil and gas production deep underground.

Underground waste disposal, which the report deems the most likely energy industry activity to cause earthquakes, is regulated under the Underground Injection Control sections of the Safe Drinking Water Act. The regulations that enforce it do have requirements to test some proposed sites to see if wells could cause earthquakes, but they don't apply to wells connected to the nation's expanding onshore oil and gas fields.

The National Research Council did not call for federal mandates, Hitzman was careful to point out.

"That was not within the scope of what the committee was asked to say," he said in a conference call with reporters Friday. "It's up to people in Washington what they want to do with that information."

The committee's suggestions are "best practices," he said, which are usually voluntary for industry. But the report also outlined a "traffic light" approach that could trigger a shutdown of injection wells tied to or near earthquakes.

By raising the issue on a national level, some say the study inevitably invites questions about whether federal regulation might be needed.

"They're very cautious, but there are parts where it indicates this has been successful so far, but it may not work forever," said analyst Kevin Book, managing director of the Washington, D.C.-based consulting firm ClearView Energy Partners. "It seems to lead to a call for some sort of federal intervention."

It is an election year, and talk of federal intervention is politically sensitive. Such sentiments are unlikely to surface Tuesday when the Senate Energy and Natural Resources Committee holds a hearing on the National Research Council report. But that does not mean there isn't some support for more oversight of the U.S. drilling boom.

"It's wrong to say there isn't any will in Washington," Book said. "It just isn't on Capitol Hill."

## More wells, more quakes

Many environmentalists do not share President Obama's reluctance to challenge the pre-eminence of state regulation. The Natural Resources Defense Council has petitioned U.S. EPA to end the hazardous-waste exemption for drilling companies, which would have the effect of requiring seismic standards for oil and gas waste injection wells (EnergyWire, March 22).

But even in the absence of federal regulation, the report suggests that in areas susceptible to man-made earthquakes, state officials could add seismic provisions to their permit approvals. Few states have done so, though some have shut down wells after earthquakes.

"The committee suggests that the agency with authority to issue a new injection permit, or the authority to revise an existing injection permit, is the most appropriate agency to oversee decisions made with respect to induced seismic events," the report states. "In many cases this responsibility would fall to state agencies that permit injection wells."

As dramatic as it may sound, it is established science that injecting industrial wastewater underground can lubricate faults and create earthquakes. Hydraulic fracturing and carbon capture and storage also can lead to "induced seismicity." But the small number of quakes linked to fracturing itself have been almost too small to be felt, and there is no carbon storage project large enough to cause a quake.

Fracturing in shale formations requires millions of gallons of water to be forced down wellbores to crack the rock and release gas. Much of that comes back up, as a brine laden with salt and toxins. Drillers dispose of it most commonly in deep underground injection wells. When the fluid is injected into or near a fault, it can lubricate the fault and cause an earthquake.

Such earthquakes are rare, but there are more instances of oil and gas disposal wells causing earthquakes than there are documented cases of water contamination from hydraulic fracturing.

As oil and gas drilling has increased in the past few years, there have been increasing numbers of earthquakes linked to underground injection of oil and gas waste.

"If we have more wells, we have more events. If we have more events, more likelihood of higher-magnitude events," Hitzman explained.

Oil and gas waste disposal has been linked to earthquakes in Arkansas, Colorado, Ohio and Texas. Scientists have linked Oklahoma's largest-ever earthquake, a magnitude-5.6 event in November, to brine injection from drilling. The earthquake injured two people and damaged 14 homes.

State officials have said linking the Oklahoma quake to oil and gas activity is premature, but one seismologist has warned that the state is risking another damaging quake if it continues to allow injection near faults (EnergyWire, April 19).

## In need of more basic data

Sen. Jeff Bingaman (D-N.M.), chairman of the Senate Energy and Natural Resources Committee, asked for the National Research Council study two years ago, before many of the most high-profile earthquakes linked to drilling activity.

The study found there is a lack of basic data on how underground formations, faults and liquid interact underground and that more research is needed into the risks of man-made quakes.

The report's checklist proposal starts with the suggestion that regulators -- typically state oil and gas agencies -- evaluate the possibility of an earthquake at sites where companies want to use or drill a well. That is not usually done for wells that receive oil and gas waste. The report also suggests that well operators could install seismic instruments in areas where there have been earthquakes to record the strength and timing of earthquakes.

And its traffic-light protocol suggests that injection could be scaled back if it is tied to earthquakes and could even be stopped if it becomes a broader concern for public health and safety.

"The ultimate success of such a protocol," the report says, "is fundamentally tied to the strength of the collaborative relationships and dialogue among operators, regulators, the research community, and the public."

#### Records shed light on local efforts to open public land for oil shale

Scott Streater, E&E reporter Energywire Published: Monday, June 18, 2012

A watchdog group has released hundreds of pages of documents that it says raise questions about a closed-door meeting last spring during which state, local and industry officials discussed legal strategies for opposing an Obama administration plan to scale back the amount of public land available for oil shale research.

The 450 pages of documents were released last week by Denver-based Colorado Common Cause and were obtained by the group under formal information requests to government officials in Colorado, Utah and Wyoming.

The group requested the records to determine whether officials at the March 27 meeting met illegally with the industry or its lobbyists to discuss a Bureau of Land Management proposal to slash the amount of lands available to oil shale development in the West (E&ENews PM, May 1). It said the new records show a quorum of commissioners from two Utah counties and one Colorado county were present at the meeting, which they say calls into question whether state open-meeting laws were violated

The records also reveal that participants at the March 27 meeting in Vernal, Utah, included Kathleen Clarke, a former BLM director under the George W. Bush administration who is now director of the Utah Public Lands Policy Coordination Office, as well as Jeff Hartley, a government affairs consultant to Red Leaf Resources Inc., which is set to begin construction of an oil shale processing plant in Utah's Uinta Basin and recently announced a joint venture with French energy company Total SA to commercialize oil shale resources on jointly owned leases in southeastern Utah (EnergyWire, April 19).

Other participants at the closed-door meeting included Glenn Vawter, executive director of the National Oil Shale Association, and Roger Day, vice president of operations at American Shale Oil, according to Colorado Common Cause.

Weeks after the March meeting, several counties, including Uintah County in Utah and Garfield County in Colorado, approved nearly identical resolutions chastising the BLM proposal that would significantly downsize a 2008 Bush administration plan to develop oil shale. The resolutions call on BLM to adopt the Bush plan, which called for making roughly 1.9 million acres of public land in Utah, Colorado and Wyoming available for commercial oil shale development.

The records show the National Oil Shale Association was allowed to provide input on the resolution discussed at the meeting, according to the group.

The 450 pages of records, including sign-in sheets and handwritten notes, can be found here.

"It's outrageous that these counties shut the public out of the meeting but let oil shale lobbyists from Red Leaf and others in the room," said Elena Nunez, executive director of Colorado Common Cause. "The emails we obtained demonstrate state and local public officials [were] meeting with industry behind closed doors to advance a policy position and develop a political strategy."

She added: "We believe there was a violation and are considering all administrative and legal options."

#### Concern for 'welfare' of county

Uintah County organized the meeting to discuss a potential multistate and county lawsuit challenging BLM's draft proposal to eliminate 75 percent of the lands available to oil shale research and development and to forgo the issuance of commercial leases (E&ENews PM, May 1). Uintah a year ago filed a separate lawsuit challenging a now-scrapped BLM plan to take stock of wilderness quality lands and consider protecting them as "wild lands" (Greenwire, March 23, 2011).

Uintah County Commissioner Mike McKee, who said he organized the meeting, told EnergyWire last month that Utah's open-meeting law allows counties to conduct closed-door sessions if litigation is being

#### discussed.

And Garfield County Commissioner Tom Jankovsky, who helped organize the March meeting, records show, told the Glenwood Springs, Colo., Post Independent that a quorum of the county commission was present at the meeting but that he was unaware beforehand that the meeting would be a private one among invited government and industry representatives.

Critics of BLM's oil shale plan have accused the Obama administration of acquiescing to a sweetheart legal settlement with environmental groups in order to toss the Bush plan. Jankovsky accused oil shale opponents of lobbying the Department of Interior to devise the scaled-back plan.

"I'm only concerned about the welfare of Garfield County, and oil shale development can potentially create jobs in our county in the future," he told the Post Independent.

Garfield County sits atop the Green River Formation, which covers portions of western Colorado, northeast Utah and southwest Wyoming.

The formation is estimated to contain more than half the world's oil shale reserves. Some officials believe the formation contains as much as 1.5 trillion barrels of recoverable shale oil -- more than three times the total that will ever be produced in the oil fields of Saudi Arabia -- and about 11 billion barrels of recoverable oil sands.

But critics say the largely experimental process of extracting crude from shale rock requires heating the kerogen, or fossilized algae, to 650 degrees Fahrenheit or more, requiring huge expenditures of energy and water, and potentially causing large-scale environmental degradation.

Meanwhile, Colorado Common Cause says it will press on to obtain more public records, contending that Uintah County has still not released the formal minutes from the March 27 meeting.

"We now know that the politicians gave industry the opportunity to make their mark on these resolutions," Nunez said. "Unfortunately, it's apparent that the public was purposefully and potentially illegally excluded from making theirs."

Streater writes from Colorado Springs, Colo.

#### U.S. lab suggests shale fractures unlikely to threaten water supply

Gayathri Vaidyanathan, E&E reporter Energywire Published: Monday, June 18, 2012 Inside EPA

Hydraulic fracturing is unlikely to pose a threat to drinking water aquifers, according to preliminary results from a government-led study in the Marcellus Shale natural gas formation in Pennsylvania.

The study adds to the back-and-forth on a fundamental question that plagues residents: Does the process of hydraulic fracturing lead to the formation of large cracks through which fracking fluid and methane can migrate into groundwater aquifers?

Most research has suggested not. The geology of the Earth varies so much, from shale, to sandstone, to other types of rock that each new layer acts like a natural barrier, one study found (EnergyWire, April 27).

Another recent study acknowledged the improbability of the event, then placed a time scale on the unlikely migration of about a century (EnergyWire, May 4).

Initial results of the latest work, from the National Energy Technology Laboratory (NETL), confirm that cracks formed by fracking are typically not long enough to connect the Marcellus to aquifers. The longest fractures scientists have found so far extend only 1,500 feet above the shale, well below any potential water aquifers. This matches with industry results.

NETL scientists took an extra step to confirm there had been no contamination. They injected separate

chemicals with the fracking fluid so that, if there is any upward migration of the fluids or gas, the additional chemicals will end up closer to the surface. NETL scientists will spend a year keeping an eye out for signs that those chemicals migrated.

"Chances are, if there is communication, we might be able to see that very quickly, but if there's no communication, which we kind of expect, we are going to have to monitor for a fairly long length of time to ensure that is indeed the case," said Richard Hammack, geologist at NETL.

The research is ongoing, and final results will be published next year.

NETL is working at a site in Greene County, Pa., in collaboration with a company that is fracking 8,000 feet into the Marcellus Shale basin. There is a second natural-gas-rich formation 4,000 feet above the site called the Upper Devonian, where a company is extracting gas. There is no water aquifer at the site, which is ideal for the scientists' work. The Upper Devonian gas wells act like a proxy for aquifers, and the research can be conducted without any worries about contaminating water supplies.

The scientists will watch for the appearance of the chemical tracers in the gas and produced water of the Upper Devonian wells.

"It is an ideal underground real-world lab to investigate hydraulic fracturing, the propagations of these induced fractures, and also the possible migration, or not, of gases and liquids between two deep zones," Hammack said.

The larger goal of the study is to get a better technical understanding of what happens during the hydraulic fracturing event. This can help form models of the migration of fluids underground that can be used at other sites where companies are fracking.

"What we are trying to do is build confidence by collecting data on baseline signals in the environment, by documenting what happens during fracture propagation, using a variety of methods to be able to document where fluids go and don't go during the process," said George Guthrie, head of geological and environmental systems at NETL.

NETL scientists said previous research and industry data suggest it's unlikely contamination will be found.

"We have good reason to believe things like fracturing can be done in a way that is normally contained within the zone, and that is based on modeling, based on phases that can serve as barriers to propagation of fractures. It is based on industry information that has come out," Guthrie said.

#### NRC Finds Quake Risks From Fracking Waste

Posted: June 15, 2012

The National Academies in a new report finds disposal of wastewater from hydraulic fracturing and other oil and gas extraction poses some risks of increasing earthquakes, which could aid activists' bid for EPA to regulate the wastewater under strict hazardous substance disposal rules.

However, the June 15 report by the Academies' National Research Council (NRC), also cautions that while wastewater disposal from fracking and other energy technologies "does pose some risk" for induced seismicity, or earthquake activity, "very few events have been documented over the past several decades relative to the large number of disposal wells in operation."

The study, "Induced Seismicity Potential in Energy Technologies," includes findings that underground injections conducted as part of fracking operations present relatively low risks of significant earthquakes, whereas carbon capture and sequestration (CCS) activities, which involve higher volumes of fluid, may induce stronger and more substantial seismic events.

However, "because no large-scale CCS projects are yet in operation," there is insufficient data available to fully examine the potential risks associated with the nascent technology, the report says.

But the NRC findings on risks associated with wastewater from fracking and other types of energy extraction could provide support for environmentalists' push to seek stricter regulation of such waste under the Safe Drinking Water Act (SDWA). While the law prohibits EPA from regulating fracking under SDWA permitting, it does allow regulation of wastewater disposal.

The NRC report finds that while wastewater disposal from oil and gas operations has long been suspected as increasing seismicity risks, the issue has not been well-documented because regulators rarely do through reviews of the seismic makeup of an area slated for just wastewater disposal -- a key criticism of environmentalists. The NRC panel found "However, the long-term effects of increasing the number of waste water disposal wells on the potential for induced seismicity are unknown, and wells used only for waste water disposal usually do not undergo detailed geologic review prior to injection, in contrast to wells for enhanced oil recovery and secondary recovery."

Environmentalists and Democrats concerned about seismicity risks from fracking are pushing for EPA to consider tighter rules for wastewater from fracking operations, arguing that the SDWA Class II rules under which such operations are currently regulated are too lax to protect against seismicity risks. Activists have long fought for EPA to regulate such wastes under strict Resource Conservation & Recovery Act hazardous waste rules, which would necessitate more stringent Class I regulation for disposal under SDWA instead of the Class II rules.

Sen. Frank Lautenberg (D-NJ) has asked the U.S. Geological Survey (USGS) to conduct an investigation into whether existing federal regulations are effective in protecting against risk of earthquakes from fracking and other energy operations.

EPA and USGS have been considering in joint research studies how the volume of wastewater injected to underground disposal wells may affect the magnitude of seismicity, and how the pressure of injections affects seismicity risks.

## Loose link in quakes, fracking

Abilene Reporter-News (TX) - Sunday, June 17, 2012

Author: Seth Borenstein

Man-made tremors rare, study finds

WASHINGTON- The controversial practice of hydraulic fracturing to extract natural gas does not pose a high risk for triggering earthquakes large enough to feel, but other types of energy-related drilling can make the ground noticeably shake, a major government science report concludes.

Even those man-made tremors large enough to be an issue are very rare, says a special report by the National Research Council. In more than 90 years of monitoring, human activity has been shown to trigger just 154 quakes, most of them moderate or small, and only 60 of them in the United States. That's compared with 0 a global average of about 14,450 earthquakes of magnitude 4.0 or greater every year, said the report, released Friday.

Most of those are caused by gas and oil drilling the conventional way, damming rivers, deep injections of wastewater and purposeful flooding. Only two worldwide instances of shaking - a magnitude 2.8 tremor in Oklahoma and a 2.3 magnitude shaking in England- can be attributed to hydraulic fracturing , a specific method of extracting gas by injection of fluids sometimes called " fracking ," the report said. Both were last year.

"There's a whole bunch of wells that have been drilled, let's say for wastewater and the number of events have been pretty small," said report chairman Murray Hitzman, a professor of economic geology at the Colorado School of Mines. "Is it a huge problem? The report says basically no. Is it something we should look at and think about? Yes."

With increased drilling to satisfy the country's thirst for energy, it is important to watch injection and other wells better and consider potential repercussions before starting, the report said. No one has been killed,

nor has there been major damage, from man-made quakes in the United States, said the report by the council, which is part of the National Academy of Sciences, a private nonprofit institution that provides expert advice to the government. "There is potential to produce significant seismic events that can be felt and cause damage and public concern," the report said.

The research council report shows that most of the tremors that can be blamed on humans occurred in Texas, California, Colorado, Oklahoma, and Ohio. California and Oklahoma had the biggest man-made shakes as byproducts of conventional oil and gas drilling. Colorado has one of the most documented cases of three 5.0 to 5.5 man-induced quakes because of an injection well. Northern California also has 300 to 400 tiny quakes a year since 2005 because of geothermal energy extraction. Man-made drilling - usually injections of fluids deep and at high pressure - can trigger shaking because it changes the crucial balance of fluid into and out of the subsurface. That can then affect the pore pressure of the soil and that's what helps keep faults from moving, Hitzman said.

The report makes sense as far as it goes, said U.S. Geological Survey seismologist William Ellsworth, but since the research council started its study, government geologists have noticed a strange increase in earthquakes that seem manmade. At a professional seismology conference in April, Ellsworth presented a USGS report on a six-fold increase in man-made quakes. He pointed to induced quakes of magnitude 4 or larger in the past year in Texas, Oklahoma, Arkansas, Colorado, New Mexico, and Ohio, but said much of this happened too late for the research council to include in its study.

Hitzman said it's still too early to tell whether those recent quakes would have changed the report's conclusions.

Another study - also too recent for the research council report - says a 4.7 magnitude quake in central Arkansas in 2011 was man-made and scientists are still looking at a 2011 quake in Oklahoma that measured 5.6 as a potential but not proven induced tremor, Ellsworth said.

The man-made quakes that Ellsworth has been seeing are almost all related to wastewater injection, he said. Ellsworth said he agreed with the research council that "hydraulic fracturing does not seem to pose much risk for earthquake activity."

If the country starts capturing the global warming gas carbon dioxide from coal power plants and injecting it underground, there is a potential for a larger quakes given the amount of the heat-trapping gas that would have to be buried, the council's report said. That's an issue that needs more study, it said.

Congress and the Department of Energy requested the 240-page report.

# Fracking is causing concern over Ohio water supply - FRACKING : Water battle brewing as drillers seek more

Free Lance-Star, The (Fredericksburg, VA) - Sunday, June 17, 2012 By Bob Downing Akron Beacon Journal AKRON, Ohio-Lea Harper is on the warpath.

The southeast Ohio resident is upset that the Muskingum Watershed Conservancy District, which collects surface water from Akron's south side all the way to Marietta on the Ohio River, is selling water from one of its reservoirs to Gulfport Energy Corp. for natural gas drilling.

That water from Clendening Reservoir in Harrison County could be just the beginning of a huge drain on Ohio's water resources, she said. Hundreds of billions of gallons are at stake, not only because of its immediate effect on lakes and rivers, but also perhaps a permanent effect on water supplies.

Chesapeake Energy Corp., for example, the most active driller in the state, is interested in the watershed's Leesville Reservoir, about 20 miles south of Canton, Ohio.

Paul Feezel of Carroll Concerned Citizens, a grass-roots group in Carroll County, where drilling is heaviest, estimates that the water needed to supply Ohio's annual drilling needs could drain two-thirds of Leesville Reservoir annually.

In all, the conservancy district has requests for water from a dozen drilling companies that are eager to tap six reservoirs in eastern Ohio.

But the conservancy is not the only source: Drillers are buying water from communities, private pond owners, water districts and private water companies, as well as pulling free water from Ohio streams.

"I'm just flabbergasted and appalled that Ohioans are willing to see their water future disappear," said Harper, who heads the Southeast Ohio Alliance to Save Our Water, a grass-roots group.

Ohio has plenty of water and can furnish the water needed for drilling to help boost Ohio's economy, state officials say. The water needed by drillers is just a drop in the bucket.

Ohio typically uses 8.7 billion gallons per day from surface and underground supplies, according to state data. Electric power plants are the biggest users, taking 6.5 billion gallons daily, according to 2010 data.

In comparison, it will take an entire year for natural gas drilling to consume about 5.2 billion gallons in Ohio.

Water, sand and chemicals are mixed and forced into wells under high pressure to fracture the earth, releasing natural gas. Water also is used to prepare cement that lines the wells, mix chemicals and control dust on roads.

Each natural gas well in Ohio needs 2 million to 6 million gallons of fresh water, the state says. The initial Ohio wells generally took 5 million to 6 million gallons.

That's about as much as 50 four-person households would consume in a year. On the other hand, in one day the city of Akron typically uses 34.66 million gallons from its reservoirs-enough to frack six wells.

If Ohio's quest for natural gas plays out over the next 20 to 40 years, it is estimated that 120 billion to 200 billion gallons of water could be needed-more than Akron is likely to deliver to its customers in 95 years.

In water-poor western states like Texas, Oklahoma, Colorado, New Mexico and Wyoming, that has become a problem. Even in central Pennsylvania, which typically is not considered a dry area, drilling has been curtailed because drought has reduced water levels in the Susquehanna River and its tributaries.

Harper said she is troubled by the heavy use of a limited freshwater resource, the threat of contamination, the threat to recreation on the lakes, and whether it is right that a public agency be making a profit off water sales.

The district, she says, was created to prevent flooding and to conserve water, not to profit from water sales to drillers.

"It's one of our greatest resources, and we're giving it away," she said. "We're supporting a risky and exploitative industry. We need to fight this. It's not sustainable. This is a big issue that's getting bigger. It's a problem that not enough people are paying attention to. We have to take a stand."

No one is monitoring such withdrawals or tracking the cumulative impacts of providing billions of gallons of water to drillers, she said.

The 18-county conservancy district it covers 20 percent of Ohio-has defended its actions and says it is doing nothing wrong in selling water to drillers and boosting economic development, said spokesman Darrin Lautenschleger.

Ohio has plenty of water to handle drillers' requests now and in the future, said Ted Lozier of the Ohio Department of Natural Resources' Division of Soil and Water Resources.

Caption: MIKE CARDEW/AKRON BEACON JOURNAL Lea Harper, center, head of Southeast Ohio

Alliance to Save Our Water, holds a yard sign during a recent protest. MIKE CARDEW/AKRON BEACON JOURNAL A dozen drilling companies have expressed interest in tapping into six reservoirs in eastern Ohio.

## PERMIAN BOOM - Very Good Times in Oil Patch in N.M., West Texas

Albuquerque Journal (NM) - Saturday, June 16, 2012

Author: Copyright © 2012 Albuquerque Journal By Richard Metcalf Journal Staff Writer

A science-driven renaissance in petroleum production has triggered "a nearly frenetic activity level" in southeastern New Mexico and West Texas, according to a recent report by the Federal Reserve Bank of Dallas.

The target of the activity is oil and related liquids imbedded in layers of shale, a fine-grained rock sediment that's comparatively impervious to water, thousands of feet underground. Technological advances have rendered these formerly hard-to-get oil deposits vulnerable to extraction.

"Producers and service companies are rapidly shifting rigs and hydraulic fracturing crews into shales rich in oil and natural gas liquids," says the Fed report. "Thus, while overall drilling activity has cooled in recent months, the Permian Basin has picked up the pace."

The Permian Basin is the sprawling "oil patch" that has been drilled and pumped for the better part of 100 years. The oil-laden shale formations are in the Delaware Sub-basin, which extends from Eddy and Lea counties in New Mexico to four counties in West Texas.

"Labor markets in the Delaware were tight before the shift to shale began, and they remain so," the report says. "A 15 percent increase in total wages was driven by a 6.2 percent jump in (overall) employment, accompanied by an 8.8 percent increase in wages paid per worker."

The upshot is that the unemployment rates in April were 3.4 percent in Eddy County and 3.6 percent in Lea County, compared to 6.2 percent statewide and 6.5 percent in the Albuquerque metro area. As workers flock to petroleum-related jobs, other job sectors in the local economy compete to fill openings.

The focus on shale formations stems from refinements in horizontal drilling and hydraulic fracturing. Use of chemical-intensive hydraulic fracturing has provoked controversy in some places because of concerns about its environmental impact.

Fluids are pumped into a geologic formation at high pressure during hydraulic fracturing. The injected fluid opens pores or fractures in the rock, which are then kept open with a chemical propping agent.

The process allows oil or other mineral deposits to move more freely through underground rock strata to production wells, which bring the commodity to the surface. It is roughly equivalent of wringing a sponge to get all the water out.

Although the process is relatively expensive, the Permian Basin has the advantage of a well-developed infrastructure and skilled workforce when compared with more newly developed oil fields. The Fed report notes that a rail terminal and several pipelines are under construction to move product to Houston. In addition, crude oil prices have been high enough to justify the cost.

JOURNAL FILE PHOTO Mack Energy Corp. employees work a drilling rig in the Permian Basin near Hobbs in this 2010 file photo. Energy industries in the oil and gas rich basin are enjoying boom times according to a new report. Pumpjacks are shown at work in Lea County near Hobbs in this file photo.

## Ohio shale firms, activists revisit fracking film

Associated Press State Wire: Ohio (OH) - Saturday, June 16, 2012

COLUMBUS, Ohio (AP) – Ohio shale firms and anti-drilling activists are holding rival events sparked by a documentary against hydraulic fracturing .

The Ohio Energy Resource Alliance, made up of oil and gas interests in the state, will screen the film "Truthland" at a Columbus science museum on Saturday.

The film is a response to the 2010 HBO film "Gasland." It has become a cult film in the growing movement against hydraulic fracturing, the high-pressure oil and gas drilling technique also called fracking.

The documentary by filmmaker Josh Fox features contaminated wells and illnesses as he visits regions where the shale drilling boon is beginning.

Alliance's "Truthland" retraces Fox's steps and, the group says, tells a different story.

Fox will headline an event Sunday at the Statehouse that's expected to draw 1,000 activists.

## Tuscaloosa Marine Shale promising for drillers and owners

Avoyelles Journal, Marksville Weekly News, Bunkie Record (Avoyelles Parish, LA) - Saturday, June 16, 2012

by Hannah Catchings/Tom Aswell

\*EDITOR'S NOTE: Although the following article was written six months ago, it contains detailed in-sight into the TMS.

Additionally, it is from the perspective of the Feliciana Parishes, but also concerns the same oil play that that runs deep below Avoyelles Parish.\*

A book by Bryan Burrough entitled The Big Rich describes how four Texans made billions of dollars in oil and gas exploration and how the families of three of those men lost most of it in high living, risky investments, internal fighting and even in an attempt to corner the world's silver market.

All four men - Lamar Hunt, Sid Richardson, Clint Murchison and Glenn McCarthy - started out dirt poor, got lucky when they hit gushers in different parts of Texas and were among the richest men in America by the 1960s, only to be dealt devastating financial setbacks when cheap oil was discovered in the Middle East.

Foreign oil flooded U.S. markets, forcing the shutdown of thousands of wells across America. With Arab oil selling for amounts cheaper than domestic producers could pump it from the ground, the bottom dropped out of domestic oil prices, forcing hundreds of wildcatters into bankruptcy.

Incredible as it sounds, oil at the time of their discoveries, was selling for less than 25 cents per barrel. Today, the price hovers around \$100 a barrel. While the recent drop in gasoline prices at the pump may be good news for drivers, the drop in tax revenue does not bode well for the Louisiana state treasury.

But new techniques and improved drilling offers hope that America will once again be the source of at least some of its own oil.

As long as the price remains comparatively high, domestic drillers will continue searching for rich new fields that will enrich the major oil company coffers.

Avoyelles parish happens to sit right on top of the Tuscaloosa Marine Shale play, a 2.7 million-acre tract that is estimated to hold a minimum of seven billion barrels of oil.

The parishes where there is major interest in obtaining leases and mineral rights for drilling for oil and gas in the Tuscaloosa Marine Shale play run through Central and East Louisiana. East and West Feliciana are situated atop the so-called "sweet spot" in the play that includes all or part of nearly two dozen Louisiana parishes and Mississippi counties.

Called the Louisiana Eagle Ford because of its geological likeness to the highly productive Eagle Ford play in Texas, the Tuscaloosa Marine Shale is the second major find in Louisiana. The Tuscaloosa Marine

Shale play has the potential to do for oil what the Haynesville Shale play in north Louisiana has done for natural gas.

The Tuscaloosa Marine Shale play cuts across central Louisiana from the Texas border to the Florida parishes. It includes all or part of the parishes of Vernon, Beauregard, Allen, Rapides, Evangeline, Avoyelles, St. Landry, LaSalle, Catahoula, Concordia, Pointe Coupee, East Baton Rouge, St. Helena, Livingston, Tangipahoa, St. Tammany, Washington and East and West Feliciana as well as all or parts of the Mississippi counties of Adams, Franklin, Wilkerson, Pike, Amite and Walthall.

Comprising nearly a third of the total land area for Louisiana, it is significant that the so-called sweet spot in the play is centered in East and West Feliciana, extending into parts of St. Helena, Tangipahoa and Livingston. Some 1.2 million acres have already been leased in that sweet spot. There are already about a dozen wells operating from Vernon to Tangipahoa parishes with the bulk of those located in the Felicianas.

That is important, given that once production starts for real in the Felicianas, the economic impact will be a major windfall. Production will create jobs as well as a demand for more housing, more restaurants, lease and royalty revenue for residents, and increases oil and gas severance tax collections for the state and the parishes.

To best demonstrate the potential economic impact, consider that for the month of November, East Feliciana Parish collected \$2,436.27 in oil severance taxes and \$2,284.70 in severance taxes on natural gas. West Feliciana did somewhat better, collecting \$15,310.16 in severance taxes on oil and only \$43.73 on natural gas.

In Claiborne Parish, the sweet spot for the Haynesville Shale play, severance taxes on oil totaled \$886,892.91 for the same month and \$106,094.70 for natural gas. Webster and Bossier parishes, also in the Haynesville play, recorded similar severance tax numbers.

Lease prices in the Felicianas, St. Helena, Tangipahoa and Livingston are running from \$150 to \$300 per acre, plus 3/16 royalties. In the Haynesville Shale play, however, land was leasing for as much as \$30,000 per acre, plus 25 percent royalties.

At its most lucrative point, Haynesville was estimated to produce \$10 billion annually in the state with each rig producing about 300 jobs, along with the growth of small businesses that serviced the oil and gas industry.

Similar figures would be huge for East Feliciana where the poverty rate is 19.7 percent and population showed a decrease from 2000 to 2010 of 5.1 percent.

In West Feliciana Parish, Police Jury President Ken Dawson said the parish has joined in an alliance with East Feliciana, Pointe Coupee and the City of Zachary to plan community needs in terms of infrastructure, natural resources and other issues related to drilling. He said the coalition has already met with Haynesville Shale counterparts in order to learn from their experiences.

Dawson said officials do not want to limit possibilities but at the same time, they want to be sure the public is protected.

East Feliciana, meanwhile, has already enacted requirements that drilling companies post a surety bond to cover any damage to parish roads.

Wells have already been drilled on the Beech Grove Plantation site near St. Francisville, on the Avondale Scout Reservation east of Clinton and on forest land owned by Weyerhaeuser Co.

Activity in East Feliciana has been such that local attorney Leslie Ligon Jr. has negotiated more than 500 least contracts over the past 15 months.

There seems to be little question that the oil—lots of it—is present in the Tuscaloosa Marine Shale. The question of bringing it to the surface then, is one of economics.

Because drillers must go as deep as 11,000 to 14,000 feet to extract the oil, well operation in the Tuscaloosa Marine Shale presents runs between \$9 million and \$15 million. If engineers can figure out the controversial issue of horizontal drilling and fracturing and if the reservoirs respond favorably, there will be a lot of large landowners who will become overnight millionaires in the Felicianas before it's over. Study predicts positive future for U.S. shale gas industry \ Projections tout 1.5 million jobs, billions in earnings

Buffalo News, The (NY) - Saturday, June 16, 2012 Author: Zain Shauk - HOUSTON CHRONICLE

The shale gas boom will account for nearly 1.5 million new jobs by 2015, employing hundreds of thousands of workers across 48 states even though some companies are cutting back on production, according to a study released this week.

Soaring investment in unconventional gas production accounted for 1 million jobs in 2010 and will continue to have an effect on the national economy, contributing \$197 billion to annual U.S. gross domestic product by 2015, according to the report by research and analysis firm IHS Global Insight. That total will increase to \$332 billion by 2035, the report indicates.

Job growth related to unconventional gas production, in both producing and nonproducing states, will increase to 2.4 million by 2035, according to the research.

The independent study was commissioned by the industry-backed America's Natural Gas Alliance and is part of a series on unconventional gas -- developed from shale, coal-bed methane and tight sands -- by IHS Global Insight, which is based in Englewood, Colo.

Roger Ihne, principal energy portfolio leader for research firm Deloitte, which was not affiliated with the study, said that while the United States now has an oversupply of natural gas, which has forced major producers to cut back on their operations, gas has a strong outlook for continued investment and job growth.

"I think clearly there's been a fundamental shift as a result of natural gas and specifically shale gas in the United States, and it has really helped to fuel a boom," said Ihne, who said the IHS study seemed on track with other analyses.

The horizontal drilling and hydrofracking used in extracting gas from shale is currently banned in New York state. However, Gov. Andrew Cuomo is reportedly considering a plan to allow it in five counties along the Pennsylvania border. But the state's environmental agencies must first compose regulations.

The debate over allowing the controversial technique in New York has split communities and neighbors. Environmentalists argue that the potential threats to the air, water and human health are not worth the risks. Advocates say that with proper techniques, the process is safe, and the economic benefits are worth the risks.

Nearly \$3.2 trillion in cumulative investments in unconventional gas development are expected to fuel the economic growth related to the industry from 2010 to 2035, according to the study.

"At a time when the U.S. economy is slowly recovering from the Great Recession and struggling to create enough jobs to sharply reduce the unemployment rate, the growth in shale and other unconventional natural gas production is a major contributor to employment prospects and the U.S. economy," IHS vice president John Larson, the lead author of the study, said in a statement.

Larson said the study took into account cutbacks on natural gas production spending because of its surplus. Major producers of domestic natural gas have had to shift away from the capital-intensive process of producing gas from unconventional sources like shale because of low natural gas prices.

Gas closed down 2.8 cents at \$2.467 per million British thermal units in trading Friday on the New York Mercantile Exchange.

According to the U.S. Energy Information Administration, there was 57 percent more gas in underground storage in March than the same month a year ago.

"We've already embedded that sort of oversupply and that activity that's going to go on as companies think about investment opportunity potentially slowing," Larson said.

Major investments in industrial projects, like several multibillion-dollar petrochemical plants already in the works in Texas, likely will contribute to growth in American gas demand that will draw continued spending on natural gas production, Ihne said.

Texas will see by far the most job growth because of the boom, with 288,222 new jobs already attributable to unconventional gas production as of 2010, the study said. That number will grow to 385,318 in 2015 and 682,740 by 2035, according to the study.

Annual government revenue from unconventional gas production is expected to exceed \$49 billion by 2015, and reach \$85 billion by 2035, the study said. By 2035, total government revenue from unconventional gas development will reach nearly \$1.5 trillion, according to the report.

The economic benefits of the shale boom are broad, according to the study, with 18 percent of the projected 1.46 million new jobs to come from nonproducing states by 2015. Louisiana ranked second in job growth in producing states, followed by Colorado, Pennsylvania, Arkansas and Wyoming. Caption: Bloomberg News If a recent study is correct, hydrofracking sites in the U.S., like the Marcellus Shale formation in Pennsylvania pictured here, could enjoy a prosperous future, even with lowered gas prices.

## Injection wells tied to quakes

Dallas Morning News, The (TX) - Saturday, June 16, 2012 Author: RANDY LEE LOFTIS and KIRA WITKIN

North Texas historically has been a sleepy backwater for earthquakes. But as the region has converted into a natural-gas frontier, things have gotten shakier.

People in Johnson County felt new evidence of the trend early Friday.

The U.S. Geological Survey said a 3.1-magnitude quake hit at 2:02 a.m. about 11 miles north-northeast of Cleburne and was felt as far away as Plano and Denton. The agency said the quake occurred 3.1 miles below ground.

Scientists said Friday that they think they know why North Texas is seeing more quakes, and it's probably not from the hydraulic fracturing of thousands of natural-gas wells in the Barnett Shale gas field.

A National Research Council panel said the increased earthquake risk probably comes from a related activity: injecting large amounts of saltwater drilling waste underground for disposal.

The Barnett Shale, which stretches from Dallas County to the west past Fort Worth, has nearly 20,000 natural-gas production wells. Almost all were drilled in the past five years. But the region has only about 100 waste injection wells. Scientists have tied the timing and locations of earthquakes to the injection wells.

'Whole house shook'

Injection wells can cause earthquakes strong enough for people to feel, said the panel, which examined possible links between quakes and several energy-related activities.

The latest Cleburne quake brought more than a hundred 911 calls to the Johnson County sheriff's office, said Lt. Tim Jones. The temblor, which lasted 15 to 20 seconds, woke up plenty of people but apparently hurt no one and damaged no property.

Scott Carpenter, who lives in nearby Keene, said the quake roused him from a deep slumber.

"I mean, honestly, I was passed out dead asleep, and I heard this boom and then a real deep rumble," he said.

"My whole house shook. My bed shook. When I first woke up to it, I thought it was either a tree falling down or one of those oil pipelines blowing up."

Mark Hayes of Mansfield, 24 miles away from Cleburne, said he was awakened - "felt like someone hit the wall on the house" - and believes the quake was responsible.

The possibility that shoving large volumes of material underground might trigger earthquakes has been a frequent theme for critics of hydraulic fracturing, or fracking.

In fields such as the Barnett Shale and the Northeast's Marcellus Shale, gas companies pump millions of gallons of chemically treated water and sand into a well to break up the rock and free trapped gas.

The injection takes place under high pressure, leading to questions about whether the fluid's force might cause tremors along geological faults.

The research council's report, Induced Seismicity Potential in Energy Technologies, found little evidence that fracking can trigger earthquakes but did find a probable link to injection wells. Injection wells use lower pressure than fracked production wells but deal with much bigger volumes of liquid.

Much of the waste injected into those disposal wells is the fluid that comes back out of gas production wells after fracking .

#### Dallas decision nears

The report said mild earthquakes in recent years near Cleburne and at Dallas/Fort Worth International Airport were probably linked to disposal wells. At the airport, the timing and locations of earthquakes in 2008 and 2009 "strongly suggest" that injection of drilling waste was the cause, the report said.

The finding about the airport quakes was based on a 2010 study by researchers at Southern Methodist University and the University of Texas at Austin.

The gas company Chesapeake Energy shut down one waste-injection well near Cleburne in 2009 after nearby earthquakes. A Chesapeake spokesman did not respond to a request for comment Friday.

Dallas City Council members are considering new rules on fracking that would not allow disposal wells in the city. The council is set to discuss gas drilling in the city on Aug. 1.

The research report said the biggest risk of induced earthquakes probably would accompany large-scale projects to capture carbon dioxide and store it underground as a measure against global warming.

Although no such projects are under way, Texas is considered prime potential territory for the practice because of geology and the state's long experience with using carbon dioxide for enhanced recovery from old oil wells.

The full report by the research council, an arm of the National Academy of Sciences, is available free at nap.edu/catalog.php?record\_id=13355.

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#### The winners and the losers

Deseret News, The (Salt Lake City, UT) - Saturday, June 16, 2012

Winner: Modern drilling techniques for extracting natural gas, known as "fracking," do not pose a big risk for causing earthquakes, a study by the National Research Council reported this week. Other types of energy-related drilling might be risky, however, the report said, but even these are not believed to pose a huge risk. The report recommended continual study of the relationship between deep drilling and seismic activity. However, the relatively clean bill of health for fracking (a 2.8 magnitude quake in Oklahoma was the only U.S. tremor connected with it) is important good news. The nation's energy needs aren't getting any smaller, and fracking has increased the available supply of inexpensive natural gas many times over. Getting the auto industry to convert to this source may take some time, but the gas will be there, waiting.

Loser: More fallout from the financial collapse of 2008: Former Goldman Sachs director Rajat Gupta was convicted this week of securities fraud and conspiracy for feeding insider information to another hedge fund manager who earlier was convicted on similar charges. The trial brought out evidence of how Gupta called the other manager just moments after a confidential conference call concerning how Warren Buffett's Berkshire Hathaway was going to invest \$5 billion in Goldman, The other manager bought \$40 million in Goldman stock moments later, which earned him \$1 million. This was information ordinary investors had no way of obtaining. Such trading didn't cause the great recession, but it is evidence of an ethical deficiency among some on Wall Street that needs to be punished.

Winner: If you have low back pain – and 80 percent of people will at some point – the news doesn't get much better than what a team of engineering professors at BYU announced this week. Anton Bowden, Larry Howell and Peter Halverson have developed an artificial spinal disc replacement that tests show is as functional as a normal, healthy disc. Sales distribution of the disc is expected next year. Considering the normal answer to low back pain – painful spinal fusion surgery – leaves 54 percent of people feeling unsatisfied, the BYU team has just hoisted the hopes of millions of people on its own backs.

Loser: Almost 60 years ago a Eurasian weed called Squarrose Knapweed established a beachhead in Utah. Today it has overrun rangelands in much of the state, posing a huge wildfire risk. People in Juab County met this week to plan a strategy using weevils, beetles and flies imported from the same Eurasian territory that is the native home to the weed, hoping they will eradicate the problem naturally. The Utah Legislature appropriated \$1 million to help. Why do we worry that the weevils, beetles and flies will eventually cause problems of their own that one day need to be fixed?

#### Report: Don't worry about quakes, fracking

Long Beach Press-Telegram (CA) - Saturday, June 16, 2012

Author: Seth Borenstein The Associated Press

WASHINGTON - The controversial practice of hydraulic fracturing to extract natural gas does not pose a high risk for triggering earthquakes large enough to feel, but other types of energy-related drilling can make the ground noticeably shake, a major government science report concludes.

Even those man-made tremors large enough to be an issue are very rare, says a special report by the National Research Council. In more than 90 years of monitoring, human activity has been shown to trigger only 154 quakes, most of them moderate or small, and only 60 of them in the United States. That's compared to a global average of about 14,450 earthquakes of magnitude 4.0 or greater every year, said the report, released Friday.

Most of those are caused by gas and oil drilling the conventional way, damming rivers, deep injections of wastewater and purposeful flooding. Only two worldwide instances of shaking - a magnitude-2.8 tremor in Oklahoma and a 2.3-magnitude shaking in England - can be attributed to hydraulic fracturing, a specific method of extracting gas by injection of fluids sometimes called " fracking," the report said. Both were last year.

"There's a whole bunch of wells that have been drilled, let's say for wastewater and the number of events

have been pretty small," said report chairman Murray Hitzman, a professor of economic geology at the Colorado School of Mines. "Is it a huge problem? The report says basically no. Is it something we should look at and think about? Yes."

With increased drilling to satisfy the country's thirst for energy, it is important to watch injection and other wells better and consider potential repercussions before starting, the report said. No one has been killed, nor has there been major damage, from man-made quakes in the United States, said the report by the council, which is part of the National Academy of Sciences, a private nonprofit institution that provides expert advice to the government.

"There is potential to produce significant seismic events that can be felt and cause damage and public concern," the report said.

The research council report shows that most of the tremors that can be blamed on humans occurred in California, Texas, Colorado, Oklahoma, and Ohio. California and Oklahoma had the biggest man-made shakes as byproducts of conventional oil and gas drilling. Colorado has one of the most documented cases of three 5.0 to 5.5 man-induced quakes because of an injection well. Northern California also has 300 to 400 tiny quakes a year since 2005 because of geothermal energy extraction.

Man-made drilling - usually injections of fluids deep and at high pressure - can trigger shaking because it changes the crucial balance of fluid into and out of the subsurface. That can then affect the pore pressure of the soil and that's what helps keep faults from moving, Hitzman said.

The report makes sense as far as it goes, said U.S. Geological Survey seismologist William Ellsworth, but since the research council started its study, government geologists have noticed a strange increase in earthquakes that seem man-made. At a professional seismology conference in April, Ellsworth presented a USGS report on a six-fold increase in man-made quakes. He pointed to induced quakes of magnitude 4 or larger in the past year in Texas, Oklahoma, Arkansas, Colorado, New Mexico, and Ohio, but said much of this happened too late for the research council to include in its study.

Hitzman said it's still too early to tell whether those recent quakes would have changed the report's conclusions.

#### Is Groundwater at Risk from Hydraulic Fracturing?

Targeted News Service (USA) - Saturday, June 16, 2012

WESTERVILLE, Ohio, June 15 -- The National Ground Water Association issued the following news release:

The National Ground Water Association is holding a one-day forum entitled "Hydraulic Fracturing: Scientific and Technical Approaches to Protect Groundwater" June 27, 2012 in Columbus, Ohio.

Some believe the promise of greater energy independence, job growth, and affordable energy supplies locked away in the Marcellus Shale, Utica Shale, and Eagle Ford Shale formations overshadow other concerns. Others contend the potential, or perceived potential, for environmental or public health damage is too great a risk to take. Misunderstanding and miscommunication cloud the discussion further.

This forum will bring together experts to examine and discuss scientific and technical issues regarding hydraulic fracturing including groundwater protection and the potential for impacts to drinking water supplies.

Speakers and presenters include staff from the U.S. Geological Survey, U.S. Environmental Protection Agency, Ohio Department of Natural Resources' Division of Mineral Resources Management, North Carolina Department of Environment and Natural Resources, Kentucky Division of Fossil Energy Development, CH2M Hill, and AECOM, among others. Presentations include:

<sup>\*</sup> Hydrogeology of the Appalachian Basin Shale Plays

- \* What Every Groundwater Professional Needs to Know About Hydraulic Fracturing
- \* Hydraulic Fracturing Studies
- \* Groundwater Baseline Testing Prior to New Shale Development Activities
- \* Groundwater Quality in the Marcellus Shale Play of Pennsylvania from Extensive Predrill Sampling
- \* Panel on Hydraulic Fracturing: State Perspectives
- \* Casing Integrity and Cementing: Why They Matter
- \* How Water Quality Monitoring near Hydraulic Fracturing Sites Improves Operational Performance
- \* Microseismic Imaging and Geomechanical Modeling for Fluid Injections and Hydraulic Fracturing
- \* Hydraulic Fracturing Wastewater Management
- \* The Use of Absorbent Glass to Recycle Produced Water and Avoid Class II Injection.

Click here to learn more about this forum ( http://www.ngwa.org/Events-Education/conferences/5035/Pages/5035jun12.aspx) or call 800 551.7379 (614 898.7791).

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#### Fracking study presented

Enterprise-Journal (McComb, MS) - Friday, June 15, 2012

Author: Ernest Herndon, Enterprise-Journal

A consultant who presented a 467-page report on fracking was highly optimistic Thursday, but urged area officials to take steps now to minimize potential problems.

Charlotte Batson of Batson & Co. outlined her findings to some 150 people at the Percy Quin State Park Convention Center on Thursday morning, followed later in the day by presentations in Liberty and Woodville.

The \$4,000 study was funded by supervisors from Pike, Amite and Wilkinson counties as well as the Pike County Economic Development District and the Southwest Mississippi Partnership.

Batson, a petroleum engineer who formerly worked in the offshore oilfield, recommended local and state officials work together to safeguard ground and surface water, make sure roads are repaired and maintained, and promote development.

The main Tuscaloosa Marine Shale play reaches across Louisiana into southwest Mississippi, but Batson said the full formation actually extends north past Jackson and east to Alabama. One study estimates it contains roughly 7 billion barrels of oil.

While fracking, or hydraulic fracturing, was first used as far back as 1903, and the presence of the Tuscaloosa Marine and other shale formations has been known for decades, the technology is just being developed to tap them more profitably.

"This is literally a revolution in resources – oil and gas," Baton said. "The major companies want in."

U.S. oil production, which has been declining since 1971, "rounded the corner and began to increase" in 2006 and 2007, Batson said.

Fracking is having an impact on the national economy and will even affect foreign policy as the U.S. becomes less dependent on Middle Eastern and other foreign oil supplies.

Southwest Mississippi, meanwhile, is poised to become one of the nation's hotspots of oil activity.

"I think this area is on the cusp of something exciting and will be a very different place in five years," Batson predicted.

But she said it could take as many as 50 wells drilled before fracking becomes profitable here, as oil companies get a better picture of what lies underground.

She compared the Tuscaloosa Marine Shale to the Eagle Ford Shale play in south Texas, which is projected to contribute \$11.6 billion to the economy and create 68,000 jobs by 2020.

"Southwest Mississippi is especially fortunate with access to some of the most important and best infrastructure in the country," Batson said, citing pipelines here as well as oil refineries, processors and ports to the south.

In addition, the oil in the Tuscaloosa Marine Shale is high-quality "light and sweet" crude.

Such factors combine to create a "perfect storm of opportunities," she said.

Those range from restaurants and motels to industries involved in the oil business. Batson mentioned a 750-job steel mill that opened in St. James Parish, La.

"They cited the availability of that (natural) gas as a critical factor in them opening that steel mill there," she said.

Liquified natural gas and chemicals are profitable byproducts from the oil production as well.

But with the opportunities come concerns – in particular, possible effects on groundwater, surface water, roads and bridges.

Freshwater aquifers in southwest Mississippi are less than 1,000 feet below the surface, while fracking wells are 11,000 to 13,000 feet deep. Oil companies use several layers of casing and cement to prevent contamination of the water supply.

Batson cited studies by the University of Buffalo, Pennsylvania State and others that found shale fracking is "not only safe but getting safer."

"Study after study shows states are doing a good job of regulating these activities," she said.

In Mississippi, the Oil and Gas Board regulates oil and gas wells and disposal wells, while the Department of Environmental Quality regulates withdrawal of water, disposal of wastewater and air permits.

Encana has permits from the DEQ to take water from the Amite River for fracking – millions of gallons per well.

Batson recommended officials in Pike, Amite and Wilkinson counties create a water management group, as north Louisiana officials did in the Haynesville formation. That group came up with a cooperative agreement encouraging oil companies to use non-drinkable groundwater and to recycle fracking wastewater, among other practices that eventually became law.

Before the group was formed, oil companies there got 90 percent of their fracking water from aquifers. Now they get 80 percent of the water from lakes and ponds and from recycling.

"I do think there's a need for water and wastewater infrastructure planning, baseline water testing," Batson

said.

Likewise, county officials can have oil companies sign cooperative agreements regarding road and bridge repairs. Officials also can pass new ordinances to address road issues.

State highway officials should plan routes for overweight trucks, such as some sort of bypass around Liberty, Batson recommended.

Area officials must work together to promote economic development as well. "There will be many great jobs coming to this region," Batson said.

The area already has two good workforce training sites at Southwest Mississippi Community College and a Shell training center in Robert, La.

Local governments can make money by selling water, wastewater, soil and gravel to oil companies, Batson said. Officials also should take care to keep the public informed through news releases, seminars and websites.

Batson said other states, such as Texas and North Dakota, have put together multi-agency commissions or task forces to deal with oilfield issues, and recommended Mississippi do the same. A Mississippi Development Authority official said the state is doing just that.

During a question-and-answer period, people involved in the oil and gas industry pointed out that production can drop quickly in new, high-producing wells.

Batson said wells can be re-fracked three or four times to boost production.

"It's not going to be as much boom and bust as a lot of people fear," she said. "It's really more of an industry moving in."

Another person asked if area officials are working together as Batson recommended.

Pike County Economic Development District Executive Director Britt Herrin replied, "We're, I think, well ahead of other areas that have dealt with that, but we still have a long way to go."

Amite County Chancery Clerk Ronny Taylor advised landowners to have a lawyer, banker or someone familiar with the oil industry look over their lease before they sign.

"You're probably going to get only one opportunity to lease your land, so be cautious," Taylor said. "There are some people out there that are taking advantage of folks."

## Lawmakers back longer public comment period on proposed frack rules

Riverton Ranger, The (WY) - Friday, June 15, 2012

Author: Martin Reed, Staff Writer

A legislative committee on Friday morning unanimously supported extending the comment period for a proposed federal rule governing the controversial practice of hydraulic fracturing .

Meeting at Riverton City Hall, the Wyoming Legislature's Joint Minerals, Business and Economic Development Committee decided to make the extension request to the Bureau of Land Management after hearing concerns about the proposal's effect on state industry.

"The economic impact is a huge concern of ours," Shawn Reese, Gov. Matt Mead's policy director, told the committee. "What we really need to know is what the economic impact to the state of Wyoming will be."

Bruce Hinchey, president of the Petroleum Association of Wyoming, told lawmakers the state's Office of

Management and Budget indicated the proposed rule would carry "very little" fiscal impact.

Hinchey said a different study showed "that was not, in fact, the case," with the cost to Wyoming energy producers as much as \$60 million in additional costs a year.

Reese said the figure could be as much as \$130 million annually.

"We are reviewing the economic analysis that shows the cost to industry in Wyoming," he said.

The concern is the rule's extra financial burden on producers who are already facing multiple federal regulatory hurdles that cause them vast delays and ultimately threaten the industry's success in the state.

The practice of hydraulic fracturing that involves injecting liquids at high pressures into the ground to extract gas is a focal point of national debate stemming from concerns surrounding an energy field near Pavillion.

The U.S. Environmental Protection Agency, in a draft report released in December, pointed to a likely connection between hydraulic fracturing and groundwater contamination in the area several miles east of Pavillion.

The Bureau of Land Management on May 4 released its proposed rule on hydraulic fracturing that would require public disclosure of chemicals used in the process after operations have ended.

The federal agency has noted existing regulations governing hydraulic fracturing operations on public lands are more than 30 years old and do not address modern activities.

Hinchey told the legislative group that his organization has sent comments to the state Office of Management and Budget to request an additional 90 days of comment.

"We're working on that very diligently," he said about drafting comments to submit to the BLM. He said the current deadline is around July 11 or 12.

"We still feel it should be left in the hands of the state's oil and gas commission" to regulate fracking, Hinchey said. He recommended that federal agencies "allow the commission to regulate the industry as it has done. That's what we would prefer to see."

Reese pointed out the lengthy delays producers in Wyoming already encounter at the hands of Bureau of Land Management officials in charge of conducting complex analytical reports called environmental impact statements.

Between 1994 and 2005 the average report took between two and a half to three years, he said.

"Now we haven't had one approved since 2008," Reese said, noting the time has increased to between five and eight years.

With the new proposed rule, the "huge concern is what is going to be the delay and the cost of the delay," he said.

Because the federal government is in no position to increase staff at the regulatory agencies, "are we not compounding a pre-existing problem?" he asked.

State Sen. Chris Rothfuss, D-Laramie, questioned whether the bulk of the additional costs would result from delays or additional rules from the BLM.

Hinchey said the added costs are due to "a little bit of both." For instance, added costs would come from companies needing a registered engineer to certify and stamp all documents provided to the agency, he said.

"But the delays are certainly a big impact," Hinchey said.

"One of them was once you cemented a well, you needed to wait for BLM" to begin fracking, he said. "There's not a lot of engineers on the BLM staff. ... I can just see the backlog on that."

The proposed rule also requires that one individual from a company must certify to the BLM that a well is 100 percent correct, "so that becomes problematic in itself," Hinchey said.

Rothfuss questioned if the proposed rule targeted Wyoming or other states. "Most of the other states -- Wyoming, Colorado, New Mexico, Texas -- all have developed their own hydraulic fracturing rules," Hinchey said, complimenting Wyoming's policies.

Reese said Mead is actively considering the issue as well as a request for an extension on the comment period. The state is "evaluating the economic impact and the rules themselves and structuring comments," he said.

State Sen. Eli Bebout, R-Riverton, the committee's co-chairman, said the letter to request the extension would not comment about the proposed rule.

"We're not going to take a position whether we support or don't support the rules right now," Bebout said. Caption: Bruce Hinchey, left, president of the Petroleum Association of Wyoming, and Shawn Reese, policy director for Gov. Matt Mead, spoke at Friday's hearing of the Joint Minerals, Business and Economic Development Committee in Riverton. Photo by Wayne Nicholls

## Fracking, environmental issues focus of Gulf States Energy retreat at LSU

Gonzales Weekly Citizen (Ascension, LA) - Thursday, June 14, 2012
BATON ROUGE - Technological advances in drilling and related environmental issues will be the topics of the Gulf States Energy Retreat, presented by the LSU Center for Energy Studies and Jones Walker law firm, June 20 and 21. The event will be held at the Dalton J. Woods Auditorium in the Energy, Coast & Environment Building at LSU. The conference will feature experts in mineral law, drilling technology and water and environmental issues related to horizontal drilling.

The first day's sessions begin at noon on Wednesday, June 20, with a panel discussion of major issues facing the energy industry, including federal and state legislative and regulatory developments and conflicts. Patrick Martin, Campanile Professor of Mineral Law at the LSU Law Center and director of the Louisiana Mineral Law Institute; and Bruce M. Kramer, professor at Texas Tech University School of Law and co-author of "Williams and Meyers Oil and Gas Law," will serve as panelists. The keynote session will feature Marjorie McKeithen, co-chair of Jones Walker's Energy, Environment & Natural Resources Industry Team, former secretary for the Louisiana Mineral Board and assistant secretary to the Louisiana Department of Natural Resources, Office of Mineral Resources; and the Honorable Scott A. Angelle, secretary of the Department of Natural Resources. McKeithen and Angelle will provide an overview of recent developments at the Texas Railroad Commission and Louisiana Department of Natural Resources.

The second day's sessions begin at 8:30 a.m. with a roundtable discussion on issues related to water acquisition, resource allocation and new research on the impact of fracking operations. Charles G. "Chip" Groat, University of Texas Jackson School of Geosciences, director of the Center for International Energy and Environmental Policy and the Energy and Mineral Resources Graduate Program, and Bruce K. Darling, Ph.D. in hydrogeology and geo-chemistry with Southwest Groundwater Consulting, will serves on the roundtable. Nicole Duarte, partner in Jones Walker's Business & Commercial Litigation Practice Group, will moderate the discussion.

The final session, on company leadership, will provide perspectives on challenges and opportunities the industry may face in the future. Speakers include Don G. Briggs, president of the Louisiana Oil & Gas Association; Randle G. Jones, senior counsel - Southern Division, Anadarko Petroleum Corp.; and Mike Brownell, director of Regulatory Affairs, Chesapeake Energy Corp.

The pre-registration fee per individual is \$100. Pre-registration ends June 15 and is available online at http://www.enrg.lsu.edu/Conferences/gser2012/index.html. The onsite registration fee per individual is \$125.

## Fracking also may be triggering seismic activity Carbon mitigation may be causing quakes

Herald and News (Klamath Falls, OR) - Saturday, June 16, 2012

Author: Bloomberg News Service

NEW YORK - Burying carbon dioxide in the ground, considered a promising way to combat climate change, may increase the risk of earthquakes, according to a report.

The process, in which liquefied carbon dioxide is stored in caverns, "may have the potential for causing significant induced seismicity," the National Research Council said Friday. Injecting wastewater underground from natural-gas fracking may also trigger earthquakes, while using hydraulic fracturing to get trapped gas doesn't pose a "high risk," the report found.

Burying carbon may pose a higher risk of quakes than wastewater disposal because it involves continuous injection of liquefied gas at high pressure, according to the report.

"Projects that inject or extract large net volumes of fluids over long periods of time such as CCS may have potential for larger induced seismic events," according to the report. "Insufficient information exists to understand this potential."

The Internation a I Energy Agency said in a Monday report that carbon capture is "the only technology on the horizon today that would allow industrial sectors (such as iron and steel, cement and natural gas processing) to meet deep emissions reduction goals."

#### New technology

While no large-scale carbon-capture projects are on line, abandoning the technology would "significantly" increase the cost of reaching greenhouse-gas emissions targets, the IEA said.

The National Research Cou nc il, a nonprof it based in Washington, provides scientific information for government decision-makers under t he au spic e s of t he National Academy of Sciences, the National Academy of Engineering and the Institute of Medicine.

## Study requested

Sen. Jeff Bingaman, a New Mexico Democrat and chairman of the Energy and Natural Resources Committee, requested the study to assess the potential for seismic events related to energy production. The report covers gas fracking, enhanced recovery of conventional oil and gas, geothermal energy and carbon capture and storage.

In the United States, fracking by forcing millions of gallons of chemically treated water and sand underground to free trapped gas has been used on 35,000 wells, according to the report. The only confirmed link between fracking and seismic activity was a 2.3 -mag nitude quake near Blackpool, England, in 2011, the report found.

E v idence I i n k i ng underground storage of fluids from energy production and earthquakes led regulators to add requirements for waterdisposal wells. Researchers think an increase in wastewater wells may be the cause for a sixfold jump in total guakes in the central U.S. from 2000 to 2011.

Seismic events related to energy development were measured in Alabama, Arkansas, California, Colorado, Illinois, Louisiana, Mississippi, Nebraska, Nevada, New Mexico, Ohio, Oklahoma, and Texas, according to the report.

## Fracking bill receives mixed reviews

Herald-Sun, The (Durham, NC) - Saturday, June 16, 2012

Author: Ray Gronberg; gronberg@heraldsun.com; 919-419-6648

DURHAM – Lobbyists for city interests are counting as a success Thursday's N.C. House passage of a bill legalizing a new method of drilling for natural gas, largely for having preserved a say in the matter for local governments.

The version of the bill House members approved on a 66-43 vote for the first time calls for giving seats on a new state mining commission to representatives of city and county governments from the part of the state that's most likely atop a major gas deposit.

And both the House and N.C. Senate versions of the bill omit language from an early Senate draft that would have barred cities or counties from regulating drilling operations via zoning laws.

"We were fighting, first, to make sure local governments were not totally pre-empted," said Erin Wynia, legislative and regulatory issues manager for the N.C. League of Municipalities. "And second, we wanted a voice in writing (upcoming) rules and regulations. We felt we were able to achieve that in the bill."

Wynia confirmed that the League of Municipalities had supported the House version of the bill as passed – a position that drew criticism Friday from Carrboro Alderman Sammy Slade.

"Ideally, the league should have been against fracking, period," Slade said in an email message to colleagues that used the popular term for hydraulic fracturing, the drilling technology that engineers think is necessary to open any North Carolina gas deposits.

Slade said he's worried subsequent court decisions could undermine local zoning authority over drilling. He also said the league's stance by "association" implies that Carrboro's government supported the bill.

Wynia, however, said the group supported the bill because a majority of its member governments and board of directors favored it. The league is a statewide organization that represents all city and town governments in North Carolina.

Given the views of its members, the league "does support development of a natural-gas extraction industry, with a big 'if' – if it can be done in a way that protects health, welfare and the environment."

The House version of the bill "sets up a process" to create the detailed regulations that will govern drilling, she said.

"That's what's going to be worked out this fall and over the next few years," Wynia said.

Federal geologists have estimated that there is likely about 1.7 trillion cubic feet of natural gas entrapped within the 225 million-year-old rock formation Durham, Orange and a number of other central North Carolina counties sit atop.

State officials have said that's enough, in theory, to meet North Carolina's natural-gas needs for about 5.6 years.

In comparative terms, the estimated North Carolina deposit is rather small, at least in how it stacks up to finds in the northeastern United States and Texas.

But it's nonetheless excited legislators and gas-industry interest groups who pushed for the legalization of hydraulic fracturing .

But the technology remains controversial, as there are fears its use could trigger the contamination of groundwater and other harms. Fracturing works by injecting water and chemicals into a well at pressures sufficient to break subsurface rock.

Thursday's vote saw all Orange and Durham county House members, save state Rep. Mickey Michaux, D-Durham, vote against approval of the bill. Michaux was recorded as not voting.

The earlier 29-19 vote in the Senate likewise featured opposition from Orange and Durham legislators, as Sens. Bob Atwater, Ellie Kinnaird and Floyd McKissick voted against the chamber's legalization bill.

All Orange and Durham General Assembly members are Democrats. The votes in both chambers fell largely but not exclusively on party lines, as most Republicans supported drilling and most Democrats opposed it.

Wynia expects the Senate to agree to the House version rather than asking for a conference committee to draft a compromise proposal.

Opponents noted that the House vote fell short of the three-fifths margin necessary to make the bill impervious to a gubernatorial veto. But as of Friday, there was no clear indication about Gov. Beverly Perdue's intentions.

"She is going to review the bill when it gets to her desk," said Mark Johnson, a Perdue spokesman. "You can even say she's reviewing it now. That's about all we're saying."

# DLA Piper Secures Significant Victory in the Second Circuit Clearing Path for Development of Major Marcellus Shale Gas Pipeline

Targeted News Service (USA) - Saturday, June 16, 2012 BALTIMORE, June 14 -- DLA Piper issued the following news release:

DLA Piper secured a significant victory in the US Court of Appeals for the Second Circuit for Inergy, L.P. and its subsidiary Central New York Oil And Gas Company, L.L.C. (CNYOG) in an important case that clears the way for the development of the company's \$257 million Marcellus Shale gas pipeline project.

The Second Circuit's decision denied a petition challenging an order issued by the Federal Energy Regulatory Commission (FERC) that authorized CNYOG to build and operate a 39-mile interstate natural gas pipeline in north central Pennsylvania known as the MARC I Hub Line Project. Upon completion, the pipeline will transport natural gas produced in Pennsylvania's Marcellus Shale, one of the nation's largest known natural gas supply resources, to several major interstate pipelines, providing much-needed access to interstate markets.

On February 14, 2012, various environmental groups, led by the Sierra Club and its counsel, Earthjustice, filed a petition in the Second Circuit to overturn FERC's approval of the MARC I pipeline. The petitioners alleged that FERC violated the National Environmental Policy Act (NEPA) by approving the pipeline without considering the environmental impacts of Marcellus Shale well drilling and associated infrastructure development in analyzing the project's cumulative impacts. The petitioners' attempt to use federal approval of interstate pipelines as a vehicle to force NEPA review of Marcellus Shale natural gas production utilizing hydraulic fracturing presented a direct threat to all future Marcellus Shale development in Pennsylvania, New York, West Virginia, Ohio, and Maryland.

The petitioners initially requested an emergency stay of construction and tree clearance activity for the MARC I pipeline pending further review by the court. That emergency stay was granted by the Second Circuit on February 17, 2012; with it, all construction work on the MARC I project was suspended.

After issuance of the emergency stay, DLA Piper partner Robert J. Alessi and of counsel Jeffrey D. Kuhn entered the case as counsel to CNYOG. Oral arguments on the petitioners' motion for a stay pending appeal were held on February 28, 2012, during which Mr. Alessi argued on behalf of CNYOG. Later that same day, the Second Circuit denied the motion for a stay pending appeal and vacated its earlier emergency stay.

Following expedited briefing, oral arguments on the merits were held before a three-judge panel of the

Second Circuit on May 31, 2012, during which Mr. Alessi again argued on behalf of CNYOG. CNYOG argued that the evaluation of Marcellus Shale well drilling included in the analysis of the MARC I pipeline's cumulative impacts more than satisfied the requirements of NEPA, and NEPA did not require analysis of the environmental impacts related to Marcellus Shale well drilling in the first place because those activities are outside FERC's jurisdiction.

In its June 12 decision denying the petition, the Second Circuit agreed with CNYOG's arguments and held that "FERC's analysis of the development of Marcellus Shale natural gas reserves was sufficient." The court also stated that "the impacts of [Marcellus Shale] development are not sufficiently causally-related to the project to warrant a more in-depth analysis."

As a result of DLA Piper's efforts, CNYOG's construction and operation of the MARC I pipeline will go forward. Husch Blackwell LLP served as co-counsel to CNYOG.

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# Hydraulic Fracturing Poses Low Risk for Causing Earthquakes, But Risks Higher for Wastewater Injection Wells

Targeted News Service (USA) - Saturday, June 16, 2012 WASHINGTON, June 15 -- The National Academies issued the following news release:

Hydraulic fracturing has a low risk for inducing earthquakes that can be felt by people, but underground injection of wastewater produced by hydraulic fracturing and other energy technologies has a higher risk of causing such earthquakes, says a new report (http://www.nap.edu/catalog.php?record\_id=13355) from the National Research Council. In addition, carbon capture and storage may have the potential for inducing seismic events, because significant volumes of fluids are injected underground over long periods of time. However, insufficient information exists to understand the potential of carbon capture and storage to cause earthquakes, because no large-scale projects are as yet in operation. The committee that wrote the report said continued research will be needed to examine the potential for induced seismicity in large-scale carbon capture and storage projects.

The report examines the potential for energy technologies -- including shale gas recovery, carbon capture and storage, geothermal energy production, and conventional oil and gas development -- to cause earthquakes. Hydraulic fracturing, commonly known as fracking, extracts natural gas by injecting a mixture of water, sand, and chemicals in short bursts at high pressure into deep underground wells. The process cracks the shale rock formation and allows natural gas to escape and flow up the well, along with some wastewater. The wastewater can be discarded in several ways, including injection underground at a separate site. Carbon capture and storage, also known as carbon capture and sequestration, involves collecting carbon dioxide from power plants, liquefying it, and pumping it at high rates into deep underground geologic formations for permanent disposal. Geothermal energy harnesses natural heat from within the Earth by capturing steam or hot water from underground.

Although induced seismic events associated with these energy technologies have not resulted in loss of life or significant damage in the United States, some effects have been felt by local residents and have raised concern about additional seismic activity and its consequences in areas where energy development is ongoing or planned. While scientists understand the general mechanisms that induce seismic events, they are unable to accurately predict the magnitude or occurrence of these earthquakes due to insufficient information about the natural rock systems and a lack of validated predictive models at specific energy development sites.

The factor most directly correlated with induced earthquakes is the total balance of fluid introduced or removed underground, the committee said. Because oil and gas development, carbon capture and storage, and geothermal energy production each involve net fluid injection or withdrawal, all have at least the potential to induce earthquakes that could be felt by people. However, technologies designed to maintain a balance between the amounts of fluid being injected and withdrawn, such as most geothermal and conventional oil and gas development, appear to produce fewer induced seismic events than technologies that do not maintain fluid balance.

A number of federal and state agencies have regulatory oversight related to different aspects of underground injection activities associated with energy technologies. Responses from these agencies to energy development-related seismic events have been successful, the report says, but interagency cooperation is warranted as the number of earthquakes could increase due to expanding energy development.

The study was sponsored by the U.S. Department of Energy. The National Academy of Sciences, National Academy of Engineering, Institute of Medicine, and National Research Council make up the National Academies. They are independent, nonprofit institutions that provide science, technology, and health policy advice under an 1863 congressional charter. Panel members, who serve pro bono as volunteers, are chosen by the Academies for each study based on their expertise and experience and must satisfy the Academies' conflict-of-interest standards. The resulting consensus reports undergo external peer review before completion. For more information, visit http://national-academies.org/studycommitteprocess.pdf. A committee roster follows.

#### TNS mv45 120616-3913161

Memo: Lorin Hancock, Media Relations Officer, Office of News and Public Information, 202/334-2138, news@nas.edu

### Local drilling opponents take case to Albany

Daily Star, The (Oneonta, NY) - Friday, June 15, 2012 Author: Joe Mahoney, Staff Writer

COOPERSTOWN -- With the dust still unsettled from Albany's leaked plan to allow hydrofracking in a limited number of Southern Tier counties, a delegation of local drilling opponents this week urged the Cuomo administration to stand behind communities that have enacted drilling bans and moratoriums.

About a dozen local officials and activists met privately at the state Capitol in Albany with Robert Hallman -- Gov. Andrew Cuomo's deputy secretary for energy and the environment -- on Wednesday, the same day that leaked information indicated that the administration is poised to allow hydraulic fracturing in a swath of the Southern Tier.

Sustainable Otsego moderator Adrian Kuzminski of Fly Creek said he presented Hallman with a map showing the 27 New York towns that passed drilling bans and the 83 that have enacted moratoriums against shale gas extraction.

"It was totally non-committal on Hallman's part," Kuzminski said. "He made no promises, and there was very little time for dialogue. We had been told the meeting would be for an hour, but it was cut down to a half-hour. What we're seeing is a pretty big tip to the iceberg -- and yet Albany is ignoring the grassroots resistance to fracking. They are ignoring this at their peril."

Otsego Town Board member Lang Keith, a retired Virginia circuit court judge who was also at the meeting, said the gas industry-backed legal challenges to local drilling bans have burdened the towns defending themselves with heavy costs and prompted citizens to raise funds that could be going to charities.

Keith said the drilling lawsuits would be knocked out if Cuomo pushed through home-rule legislation clarifying the right of towns to determine their own destiny on the drilling issue.

Keith said he told the Cuomo representative that "planning and zoning have always been things that people who believe in good government have supported."

Ron Bishop, a State University College at Oneonta chemistry professor who also attended the meeting, said Keith's point was "delivered eloquently."

"Why would the governor withhold support for such a basic democratic ideal -- and leave us to pay the

freight?" Bishop asked.

Bishop said he told Hallman that the state Department of Environmental Conservation, the agency that would regulate hydrofracking , has failed to adequately monitor conventional gas wells and abandoned wells.

"What good are new regulations when they ignore existing ones?" he asked. "Why would we expand an industry when our agencies are not capable of bringing it into compliance now?"

Cuomo, in an interview aired on an Albany radio station Thursday, offered no denial or confirmation for the information his administration leaked to the New York Times regarding the plan to allow drilling in Chenango, Broome, Chemung, Steuben and Tioga counties.

He suggested the administration was still wrestling with the home-rule issue. "What is the state's relationship to a local government and how do you weigh home rule in this?" Cuomo said.

He said DEC officials "haven't finished analyzing the science" and stressed that no final decisions have been made regarding hydrofracking permits.

"I'm not threading the needle." he said. "It's finding the truth and doing what's intelligent and having the ability as a government to address and answer subtleties."

David Bliss, the town supervisor of Middlefield, which is defending its year-old drill ban from a lawsuit filed by dairy farm owner Jennifer Huntington, said his town's legal expenses are piling up while Cuomo remains undecided on home rule. "The longer he waits, the more money will be spent by the town," said Bliss, who was in the group that met with Hallman.

Marie Lusins-McLachlan of Oneonta, a pro-drilling member of the Otsego County Natural Gas Advisory Board, said she hopes Cuomo continues to offer no encouragement for local home-rule initiatives. She argued that the state DEC has far more expertise to evaluate drilling applications than local government officials.

She said the DEC will be in a position to add new compliance monitors once the revenue from an expanded gas industry starts flowing into state coffers. She said she believes the gas drilling industry, if located close to a tourism center such as Cooperstown, could do so without creating any negative impacts.

"If it is done correctly, they come in, they drill, and they're gone," Lusins-McLachlan said.

Ellen Pope, executive director of Otsego 2000, which is opposed to hydrofracking, said while most of Otsego County was not listed among the counties where the DEC will reportedly allow fracking, it "isn't out of the woods."

"There is still a lot of concern," she said. "There is nothing to say the governor wouldn't change his mind two years down the road" and expand the region where hydraulic fracturing is allowed."

# Hinchey Urges New York to Take Stronger Steps on Fracking - Rep. Maurice Hinchey (D-NY) News Release

Government Press Releases (USA) - Friday, June 15, 2012

Washington, DC -- Following up on a report in The New York Times that New York Governor Andrew Cuomo's administration is pursuing a plan that would permit hydraulic fracturing in parts of New York, Congressman Maurice Hinchey today urged the governor to take a series of 10 steps before even considering the possibility of any natural gas drilling in the state. The congressman praised the governor for his thoughtfulness on the issue, but said that more steps need to be taken to adequately protect the environment and public health from the risks of the controversial gas extraction process that involves pumping toxic chemicals deep into the ground.

"I commend you for the deliberate and thoughtful way in which you have proceeded with shale gas drilling in New York," Hinchey wrote in a letter sent today to Cuomo. "It is clear that you want to make sure people's water supplies are protected and I applaud the fact that you and your administration have not stood in the way of local communities that have passed hydraulic fracturing bans. However, despite the very hard work of, and sincere efforts by, the New York State Department of Environmental Conservation (DEC) to update New York's rules covering high-volume hydraulic fracturing, serious gaps remain."

Among Hinchey's recommendations to the governor are: a cumulative impact analysis of the impact hydraulic fracturing would have in the state; a full assessment of public health risks; a comprehensive wastewater treatment plan; a rule to create further distance between potential drilling sites and water supplies; a prohibition on the use of toxic chemicals in all fracking fluids; a rule mandating public disclosure of all chemicals used at each well site before drilling commences; a dramatic increase in New York State Department of Environmental Conservation (DEC) resources and staffing to oversee potential drilling; a complete ban on land spreading of fracking waste fluids; alignment of DEC's gas drilling permit rules with the requirements of secondary lending institutions covering oil and gas activity on mortgaged properties; and waiting for the result of the ongoing EPA study of hydraulic fracturing that the congressman initiated.

Earlier this year, Hinchey urged Cuomo to withdraw the state's revised draft Supplemental Generic Environmental Impact Statement (dSGEIS) on high-volume horizontal drilling and hydraulic fracturing in the Marcellus Shale and other areas of New York State. Hinchey said at the time that the current form of the dSGEIS failed to address many of his concerns with the initial draft and also does not account for new information that has been discovered about the environmental, public health and economic risks associated with the natural gas drilling activity.

"We only have one chance to get this right, which is why we must take every possible step to protect the environment, public water supplies, and the overall health of residents from the dangers of hydraulic fracturing," Hinchey said. "Governor Cuomo has taken some positive steps forward to protect communities from fracking, but much more needs to be done before any consideration should be given to issuing permits for drilling."

Hinchey is a leader in Congress of the effort to protect drinking water and the environment from the risks of hydraulic fracturing. He is a co-author of the Fracturing Responsibility and Awareness of Chemicals (FRAC) Act, which would mandate public disclosure of chemicals used in fracking fluid and close a loophole from the 2005 Bush-Cheney energy bill in order to allow the EPA to regulate fracking activities under the Safe Drinking Water Act. The congressman, who is a member of the House Appropriations Subcommittee on Interior and the Environment, also authored the appropriations language that led to the current EPA study on the risks that hydraulic fracturing poses to drinking water supplies.

The full text of Hinchey's letter to Cuomo follows:

June 14, 2012

The Honorable Andrew M. Cuomo

Governor of New York State

NYS State Capitol Building

Albany, NY 12224

Dear Governor Cuomo:

As you know, over the last few years I have been actively working to protect the environment, public health and our communities from the risks posed by horizontal drilling and high-volume hydraulic fracturing. Shale gas drilling has been proliferating rapidly across the country and, unfortunately, too many states have not taken the necessary steps to protect our communities, water resources, air quality,

and public health. New York must not follow this path. In response to today's piece in The New York Times entitled "New York Plan Would Restrict Drilling to Struggling Region," I wanted to share my thoughts with you on this matter.

I commend you for the deliberate and thoughtful way in which you have proceeded with shale gas drilling in New York. It is clear that you want to make sure people's water supplies are protected and I applaud the fact that you and your administration have not stood in the way of local communities that have passed hydraulic fracturing bans.

However, despite the very hard work of, and sincere efforts by, the New York State Department of Environmental Conservation (DEC) to update New York's rules covering high-volume hydraulic fracturing, serious gaps remain. As you consider how to move New York forward on this issue, I hope you will take in to account the following recommendations:

A cumulative impact analysis of natural gas drilling in the Marcellus formation to understand the full impact drilling could have on our water resources, air quality, local roads and other public infrastructure.

A full assessment of the public health impacts of gas drilling through an independent Health Impact Analysis, as called for by more than 250 health care professionals in an October 2011 letter.

A comprehensive wastewater treatment plan that details where and how large amounts of flowback and produced water will be treated or disposed, including how toxic or radioactive contaminants will be removed.

The state's proposed setbacks are too close to sensitive water supplies, including private drinking water wells, municipal underground water supplies, and New York City's underground drinking water aqueducts. The state should consider analyses and recommendations from the U.S. Geological Survey and the New York City Department of Environment Protection and further study is needed to determine appropriate setback distances.

A prohibition on the use of toxic chemicals in all fracturing fluids in order to prevent groundwater and surface water contamination. The revised draft calls for operators to "consider" less toxic fracking additives. The state should mandate the use of non-toxic fracking additives and ban the use of carcinogenic and endocrine-disrupting compounds.

Public disclosure of all chemicals used in hydraulic fracturing fluid at each well site, before drilling operations begin. Specifically, the state should require gas companies to publicly disclose all proposed chemical constituents and their percentage by mass before operations commence and disclose the actual chemical constituents and percentage by mass after the operations are completed.

A dramatic increase in DEC resources and staffing devoted to the permitting and oversight activities related to high-volume hydraulic fracturing .

A complete ban on land spreading of shale gas drilling waste fluids and a prohibition on the use of reserve pits or centralized impoundments for fracking fluids and flowback water.

Alignment of DEC's gas drilling permit rules with the requirements of secondary lending institutions covering oil and gas activity on mortgaged properties. These include pre-approval from banks and other lenders before signing gas leases, minimum setback requirements from residential structures, prohibition on certain drilling and process equipment, title insurance requirements, property assessments, and more.

Await the results of the U.S. Environmental Protection Agency's comprehensive study on hydraulic fracturing and water resources, which I initiated in 2009, before making a final decision on this issue.

You are, and have been, an outstanding governor and I am deeply proud of the way you have led our state over the last year and a half. I know you want what's best for New York and I appreciate your consideration of my views as you contemplate the future of shale gas drilling in our great state.

Best regards.

Sincerely,

Maurice D. Hinchey

Read this original document at:

http://hinchey.house.gov/index.php?option=com\_content&view=article&id=1854:hinchey-urges-new-york-to-take-stronger-steps-on- fracking &catid=72:2012-press-releases

DEC regulations on high-volume, horizontal fracking Officials say draft rules inadequate - Some local municipalities passing resolution supporting drilling

Leader, The (Corning, NY) - Friday, June 15, 2012

Author: The Leader Staff

CORNING - Four Corning City Council members were among 313 elected officials across upstate New York who signed a letter to Gov.

Andrew Cuomo in early June, saying the DEC's draft regulations on highvolume, horizontal fracking are inadequate and calling for more independent studies to be added.

In the meantime, local municipalities have been passing a standard resolution distributed by advocates including the Joint Landowners Coalition of New York, supporting drilling and voicing confidence in the DEC's work.

With this week's reports that the state may first allow fracking only in the Southern Tier and only in municipalities that want it, the focus in the drilling issue is shifting, at least for now, to leaders of local municipalities.

The city council members that signed the letter to Cuomo were Frank Coccho, Hilda Lando, Lee Welles and Ross Cavallaro.

Elmira Mayor Sue Skidmore and Pulteney Town Supervisor Jane Russell also signed the letter, which asks Cuomo to keep the state's de facto moratorium in place "until analyses have thoroughly and properly evaluated the potential health, economic and cumulative impacts on local communities."

The current DEC draft regulations "fail to meet this standard and new concerns about the impacts of hydraulic fracturing arise every week," and many serious questions remain unanswered, the letter says.

The elected officials - which included village trustees and mayors, town board members and town supervisors, clerks and highway superintendents, city council members and mayors, and county legislators - called for the following:

- · A comprehensive health impact assessment of the entire shale gas extraction process, including direct and indirect health effects and cumulative health impacts.
- · A revised analysis that considers all potentially negative socioeconomic impacts, including but not limited to increased demands on local governments, first responders and law enforcement, and the effects of drilling on property values and home mortgages, existing businesses and economies, and local community character.
- · A revised study of cumulative impacts, including impacts on rural landscape, water resources, air quality, and greenhouse gas emissions, and the lack of safe alternatives for wastewater disposal.

"As elected officials from across New York State, we share with you the responsibility to protect and defend our people and our state. Although the geographic area where drilling may occur may be limited,

the impacts will be felt across the state. Unless and until the facts and the science prove that horizontal hydraulic fracturing is safe. New York's de facto moratorium must remain in place." the letter concludes.

More than 100 municipalities in New York have passed their own moratoriums or bans while waiting for the state's decision on allowing fracking .

Meanwhile, the standard resolution being brought to local boards by drilling supporters highlights the safeguards the DEC has put in its regulations and states that "we have confidence the state will develop a program that allows development of our natural gas resources to proceed in a safe, responsible and competitive manner." It also states that "premature local action in our municipality could negatively impact the competitive environment of all of New York State for natural gas development" and says that pursuit of a ban or moratorium would be "an irresponsible and premature misallocation of town resources." At least seven municipalities in Steuben County alone have passed the resolution, and several others are considering it, according to local JLCNY representative Neil Vitale.

Independence Energy Corp. Provides Geological Details of Coleman - South Lease Exploration Joint Development Project

Market Wire (USA) - Friday, June 15, 2012

Independence Energy Corp. (OTCBB: IDNG) (the "Company" or "Independence Energy") is pleased to provide this update to shareholders with additional geological information regarding the Coleman South Lease exploration joint development project located in Coleman County, Texas. The Company recently acquired a 12.5% working interest in the Coleman South Lease project and holds an option to increase its working interest to 25.0%.

"The acquisition of an interest in this relatively large land package is due to our belief that the area is potentially underdeveloped, especially in light of our newly gained knowledge from the Shields-MEI #105H horizontal well drilling just 3/4 mile away," stated Mr. Gregory C. Rotelli, CEO and President of Independence Energy. "We envision developing and participating in a long-term strategy that would lead to drilling numerous new wells on the property using modern drilling and completion techniques, including horizontal drilling and fracking. We anticipate that the property could support up to 50 vertical or 15 horizontal wells."

The Coleman South Lease project covers an area of 2,400 acres, four miles southwest of Novice, Texas, situated approximately 3/4 mile from the location of the Shields-MEI #105H horizontal well currently being drilled and in which the Company also holds an interest. The region is best known for containing numerous producing horizons that are stratigraphically and structurally used as trapping mechanisms for oil and gas deposits. The Company believes that many of these formations remain under-exploited or untouched in key offset locations. Several potential high-priority exploration drill targets (vertical and horizontal) have been identified and will be considered by the Company and its partners. Primary target formations include, but are not limited to, the Ellenburger Dolomite (4,400 feet), the Gray Sandstone (3,800 feet), Gardner Sandstone (3,700 feet), and Jennings Sandstone (3,600).

The Ellenburger Dolomite was formed in Ordovician age, which was later eroded resulting in several highly structured trapping mechanisms. Ellenburger wells are known for their high initial rate of production and potential quick payout. Very few wells have been drilled deep enough to penetrate the Ellenburger in this area. One proposed location is offsetting two historic Ellenburger producers that had difficulties upon completion. The Hrubetz Ellenburger field has produced over 1.4 million barrels of oil and 2,400,000 mcf of gas.

The Gray Sandstone is trending north-south across most of the Coleman South Lease. One historic well in section 10 produced 105,542 barrels of oil and 311,832 mcf of gas. This well should be offset to the north. Most Gray Sand wells are known to produce above 50,000 barrels of oil equivalent. The Templeton Field is located two miles to the east in sections 1, 2, 39, and 40. Most of the production from the Templeton Field has come from the Gray formation (along with the Gardner and Jennings). This field has produced 1,567,678 barrels of oil and 4,148,320 mcf of gas.

The Gardner Sandstone is the middle sand in the Strawn Series. One of the more famous Gardner fields

is the Novice Field, located just two miles to the north. The Novice Field made 3,313,211 barrels of oil and 3,764,370 mcf of gas. Two and a half miles northeast is the Rough Creek Ranch Field which has made 131,639 barrels of oil and 1,266,103 mcf of gas from the Gardner and is still productive.

The Whitley Field is also located on our acreage block. It has produced 3,481,290 barrels of oil and 1,012,697 mcf of gas from mostly the Jennings Sandstone. It has several potential offset locations remaining. The Jones-Hill Field located one mile east, in section 16, has produced 200,657 barrels of oil and 11,051 mcf of gas to date from four Jennings wells. The CJC Field located in sections 5, 118, and 119 has produced 874,678 barrels of oil and 1,581,839 mcf of gas from 19 Jennings wells.

Further updates regarding the Coleman South Lease Joint Development project and other Independence Energy business will be made as additional information becomes available.

About Independence Energy Corp. Independence Energy Corp. is an oil and gas exploration and development company focused on projects in the United States. Independence Energy is seeking to further advance its existing projects through development or offset drilling and to expand its portfolio to include additional property interests in the United States.

Some information in this document constitutes forward-looking statements or statements which may be deemed or construed to be forward-looking statements, such as the results of exploration and planned operations on the Coleman South Lease as well as the increase in interest to 25%. The words "plan", "forecast", "anticipates", "estimate", "project", "intend", "expect", "should", "believe", and similar expressions are intended to identify forward-looking statements. These forward-looking statements involve, and are subject to, known and unknown risks, uncertainties and other factors which could cause the Company's actual results, performance (financial or operating) or achievements to differ from the future results, performance (financial or operating) or achievements expressed or implied by such forward-looking statements. The risks, uncertainties and other factors are more fully discussed in the Company's filings with the U.S. Securities and Exchange Commission.

All forward-looking statements attributable to Independence Energy Corp. herein are expressly qualified in their entirety by the above-mentioned cautionary statement. Independence Energy Corp. disclaims any obligation to update forward-looking statements contained in this estimate, except as may be required by law. All references to historical production from formations in and around the Coleman South Lease are for illustrative purposes only and there can be no assurance that the Coleman South Lease will produce any commercially viable oil resources for the Company.

### Marcellus shale gas leases greatly improved in New York State

Philadelphia Examiner (PA) - Friday, June 15, 2012

Author: Robert Magyar

Financial troubled Chesapeake Energy has agreed to a state of New York legal settlement to renegotiate 4,400 Marcellus shale region gas leases with landowners on more favorable financial and environmental terms, according to state Attorney General Eric Schneiderman. These actions through the company's Marcellus shale subsidiary, Chesapeake Appalachia, also require it to pay the state of New York \$250,000 to reimburse the state for the cost of the investigation.

For Chesapeake Energy this is yet another major blow as it must now allow it's New York State original leaseholders to seek more competitive and improved leasing rights. Under the agreement Chesapeake leaseholders are allowed to shop the market of Chesapeake's competitors wherein the company must either meet the competitor's offer or forego the original lease. For these New York State Marcellus shale leaseholders, their improving shale gas knowledge now allows them to negotiate better leasing terms, payments and importantly, improved protection of their lands and water rights.

This is the second not so go piece of news for Pennsylvania's Marcellus leaseholders in the last month for many of the state's landowners who signed production leases with shale gas companies early on before the full dynamics of the industry and its economics were really known. It appears New York State lease

holder's ability to obtain better leases result in large measure from that state's previously enacted shale gas drilling moratorium, a measure never considered in Pennsylvania.

Adding insult to injury, Chesapeake Energy along with other shale gas drillers have been decreasing drilling operations in the Marcellus region in favor of wet oil infused shale gas as found in the Utica shale which underlies eastern Ohio and a small portion of the southwest corner of Pennsylvania. Given what is now appearing to be high extraction costs for shale gas versus the current price to market, wet oil infused shale gas is considered much more valuable than its lowly brother, Pennsylvania's Marcellus dry shale gas.

If the New York State drilling moratorium is lifted in whole or part, a sizeable number of landowners there are now in a much better negotiating position. There may well be wet oil infused shale gas opportunities in New York State as it falls both within the Utica and the Marcellus shale regions.

It also appears Chesapeake Energy's aggressive risk taking strategy backfired yet again in attempting to use New York State's drilling moratorium as the primary cause for its legal position when it tried to extend the leases in 2009. The company claimed the state's moratorium on shale gas development resulted in an uncontrollable "act of god" which prevented drilling therefore allowing it to extend the leases on its terms locking in the landowners.

Existing leaseholders began filing complaints with the State Attorney General's Office, which then began its investigation into the company's practices. The company admitted no wrong doing in its settlement with New York State. Now the leaseholders are free to seek better terms and Chesapeake Energy stockholders get to pay the cost of the state's investigation.

With Pennsylvania having been the original testing ground for shale gas development, many landowners now understand leasing agreements allow drilling companies not only to extract the gas on their lands but full use of the landowner's property including the right to make road and other gas well site infrastructure development. This includes installing large compressors and holding tanks along with monitoring stations. The putting up security fencing, some which include razor wire, security spot lighting, road gates blocking off access to the property owner outright. Leases also allowed in some cases the use of the property owner's water for the drillers fracking and re- fracking operations without compensation.

Early on leases have allowed drilling companies 24/7 365 day access to their wells often resulting in surprised landowners who find drillers on their properties at all hours.

Deductions from royalty check payments were also not well understood by many landowners in the early on land grab rush of the big shale gas players such as Chesapeake Energy. According to Craig Tillotson, executive vice president of sales at the Hefren-Tillotson wealth management firm, "Complicating the value of royalty checks is whether a company can deduct post-production costs from a royalty payment before cutting the check to the landowner -- a detail often negotiated during a lease signing. Post-production costs can include everything from the cost to compress and process the gas to the cost of the pipelines needed to transport it."

In addition Tillostson points out marketing costs are included in such royalty check deductions. Such funds are often used by the industry to support their front groups such as the Marcellus Shale Coalition, billboards and even the onslaught of nightly industry TV commercials proclaiming the simplistic and ever safe processes of shale gas drilling. In August 2011, Chesapeake Energy made such production cost deductions from 20,000 lease holders in the Barnett Shale region in Texas. Lacking any restrictions against such deductions in their agreements with the company, leaseholders saw their royalty checks decreased around 25%.

Many Barnett shale leaseholders also signed early on with the drilling companies as Texas has always been culturally more accepting of the oil and gas industry.

GoMarcellusshale.com, a large online blog founded by Keith Mauck who is the site's publisher, also reports scattered complaints of such royalty payment deductions from surprised Pennsylvania

leaseholders. Mauck's online portal is well organized and is proving to be a reliable citizen's clearinghouse of local landowner's experience with the industry both good and bad allowing people to learn from one another.

Many will condemn New York State's actions with Chesapeake Energy as yet another example of 'big government' overreach. Still others will say such 'government interference' does nothing but make New York State a lousy state to do business in for the shale gas industry. But for 4,400 some odd of the state's leaseholders they clearly get the chance to deal with the industry on a more level playing field. An opportunity not afforded to Pennsylvania land owners.

For those who wish to attack New York State's actions on behalf of their citizens it should be remembered it is after all a government by, of and for the people.

Disclaimer: The writer holds no shares of Chesapeake Energy or any other U.S. securities in shale gas development companies and is not affiliated with or funded by any major environmental or anti- fracking citizens group. The writer holds no financial arrangements with any of the entities or persons listed in this article.

To learn more about New York State's settlement with Chesapeake Energy, go to:

http://www.ag.ny.gov/press-release/ag-schneiderman-announces-landmark-agreement-chesapeake-app alachia-allow-landowners

To read the interview with Mr. Craig Tillotson and his wealth management company, go to:

http://shale.sites.post-gazette.com/index.php/news/archives/24550-checks-from-drilling-may-dry-up-amid-low-gas-prices

To learn more or become a member of GoMarcellusShale.com, go to: http://gomarcellusshale.com/

## ANTI- FRACKING BILL APPROVED BY ASSEMBLY COMMITTEE

Record, The (Hackensack, NJ) - Friday, June 15, 2012 Author: James M. O'Neill

A bill to ban the treatment or disposal in New Jersey of waste generated by fracking moved a step forward Thursday when the Assembly Environment Committee voted to approve the measure.

New Jersey already has a one-year moratorium on hydraulic fracturing -- fracking -- a controversial process to extract natural gas from bedrock, but environmentalists have been concerned that waste from fracking operations in Pennsylvania could be brought here.

In May, the state Department of Environmental Protection said fracking waste had not been brought to New Jersey so far this year, though in the past a soil cleaning company called Clean Earth processed cuttings from fracking at its facility in Kearny.

"We are already seeing New Jersey becoming a dumping ground and if more companies start drilling, there will be thousands of trucks with loads of toxic chemicals going through our communities," said Jeff Tittel of the Sierra Club's New Jersey chapter in explaining the need for the legislative ban.

"The last thing we need or want in New Jersey is the dumping of radioactive waste, especially the waste produced by someone else's callous environmental practices," said Assemblywoman Connie Wagner, D-Paramus, who introduced the bill.

The bill now goes to the full Assembly for a vote. A partner bill has been introduced in the state Senate by Sen. Robert Gordon, D-Fair Lawn.

# Fracking sounds good, but facts needed

Sun News, The (Myrtle Beach, SC) - Friday, June 15, 2012

Author: The Hickory (N.C.) Daily Record

The measure that would allow horizontal drilling and the process known as fracking in North Carolina aims to protect homeowners and the environment, but lawmakers no doubt want to develop natural resources as a major component in the state's economy.

Hydraulic fracturing injects a drilled well with chemicals, water and sand to crack shale rock and free trapped natural gas.

Senate Bill 820 passed the House on Thursday. Senators agree with amendments a House committee has made, so the bill should reach the governor's desk soon.

The bill enumerates public and environmental protections in a 19-point plan that dictates what the state will do before the first fracking permit is allowed. It is important to note that at this time, no fracking permits have been certified by North Carolina. In fact, the legislature estimates that if fracking is allowed, the first permit application is probably two years away.

Fracking has its detractors. Environmentalists claim fracking has made a mess of the ecology everywhere it has been tried. Industry, of course, says otherwise. North Carolina government officials want to know if fracking can be done safely in this state. Senate Bill 820 declares:

"It is the intent of the General Assembly to establish a modern regulatory program based on the recommendations of the final report and the following principles:

- (1) Protection of public health and safety.
- (2) Protection of public and private property.
- (3) Protection and conservation of the State's air, water, and other natural resources.
- (4) Promotion of economic development and expanded employment opportunities.
- (5) Productive and efficient development of the State's oil and gas resources."

Jobs and productive development are the key words here, even though protections are listed first. Still, the mandatory report mentioned in the bill's language will achieve legislators' goals if the terms are followed to the letter.

A number of state agencies must unite to devise fracking regulations by October 2014. A rule-making commission will contain local government officials and a representative of a publicly traded natural gas company instead of oil and gas developers as originally proposed, according to The Associated Press.

The Senate bill's sponsor, Sen. Robert Rucho, R-Mecklenburg, said "We believe it (the bill) provides the framework for the state of the art best business practice of rules and regulations dealing with shale gas exploration and production."

Environmentalists maintain there are not enough protections to prevent groundwater contamination from fracking and two years is not enough time to create rules and erect a responsive regulatory system. But Rep. Mitch Gillespie, R-McDowell, who presented the bill in the House, emphasized that while the measure legalizes fracking, concerns can be addressed during the two years given the special commission to develop regulations.

"A no vote on natural gas extraction is not on this bill," he told legislators. "That no vote will come two and a half years from now when we come back with the rules and ask for permission to start drilling if we

agree upon it at this time."

Gillespie makes an important point: Legislators should agree on fracking and the regulatory system when the time comes to say yea or nay on exploration and drilling permits. Our lawmakers must be convinced it's OK to go ahead. If they aren't, we expect them to delay fracking until they - and we - are assured risks are minimized and our finite water supplies are protected.

The economic impact of adding oil and natural gas to our list of marketable resources is appealing, but we cannot trade water for gas. The commission charged with outlining a system and protections for pulling these riches from the earth must report all the facts about fracking in North Carolina.

## Massive shale gas find for Apache

UPI International Intelligence - Friday, June 15, 2012

Author: UPI News Service

Houston's Apache Corp. has announced what it calls the best unconventional gas reservoir in North America.

Apache, the second-largest U.S. independent oil and natural gas producer by market value, says the find in the Liard Basin in northeast British Columbia contains enough gas to match Canada's entire current output for almost a decade.

Apache estimates the Liard to contain 210 trillion cubic feet of natural gas, 48 trillion cubic feet of which is sales gas for production and sale.

That compares with 5.3 trillion cubic feet produced by western Canada in 2011, and a BP PLC report released this week showing proved gas reserves in the United States totaling 300 trillion cubic feet and a total of 70 trillion cubic feet in Canada.

This is enormous, Gordon Currie, senior oil and gas analyst at Salman Partners told the Vancouver Sun newspaper. Those are big, big numbers.

Based on Apache's estimates, Currie said, the Liard should provide British Columbia with enough gas to export for many, many years to come.

Apache is one of three partners in the proposed \$4.5 billion Kitimat LNG pipeline and terminal 643 miles north of Vancouver that would connect natural gas from Canada to LNG markets in the Asia Pacific region.

Apache began exploring the shale gas play in 2007 and has since secured about 430,000 acres of land in the Liard, The Globe and Mail newspaper reports.

The well, when drilled in 2009, produced 21 million cubic feet of gas per day during its first month, requiring only six fracks -- the hydraulic fracking technique used to free shale gas -- compared to 18 fracks or more usually needed for gas to flow.

G. Steven Farris, Apache's chairman and chief executive officer in announcing the Liard Thursday at the company's annual investor day, called it one of the best shale wells we've seen in any play.

Our analysis indicates that the formation characteristics are remarkably consistent across this large basin, Farris said.

The Liard, however, poses some challenges for Apache. Because of its remote location, it will require substantial infrastructure and Apache is likely to face opposition from First Nations groups.

It really seems to be the challenges are stakeholder-involved, said Robert Fitzmartyn, managing director of institutional research with FirstEnergy Capital Corp., in Calgary.

In announcing resource estimates for Liard and other plays including the Anadarko Basin in western Oklahoma and the Texas Panhandle, Farris said, For Apache, this is the time to drill more wells.

### Idaho moves forward on fracking while Alabama and Vermont ban the practice

Washington Examiner (DC) - Friday, June 15, 2012

Author: Jerry Nelson

Alabama has joined Vermont in banning hydraulic fracturing, or "fracking" within state boundaries.

Environmental groups headquartered in Birmingham and Talladega have been fighting the possible lease of public land in the Talladega National Forest and have been able to win the Alabama Senate's support.

View slideshow: Craters of the Moon National Park endangered by VanderSloot

Senator Gerald Dial, R-Lineville says, "I'd like to keep this area as clean and pristine as we can for future generations, and I see this drilling as an infringement upon that."

Under Dial's sponsorship, the Alabama Senate passed a resolution opposing the potential lease of public land for fracking .

In May 2012, Vermont's Governor Peter Shumlin signed a bill making Vermont the first U.S. state to ban fracking . "This is a big deal," Gov. Peter Shumlin said Wednesday. "This bill will ensure that we do not inject chemicals into groundwater in a desperate pursuit for energy."

In Idaho, pressure from wealthy donors is put on state legislatures to approve fracking - including on public land if needed. Craters of the Moon, a National Park located just west of Idaho Falls/Pocatello area is being talked about as a possible site for natural gas and oil exploration by Frank VanderSloot, billionaire founder of Melaleuca..

Craters of the Moon was a geological training ground for astronauts preparing to visit the moon in the 60s and 70s and was shown in the movie, "From the Earth to the Moon". Craters of the Moon is the second most visited National Park in Idaho.

When asked whether any place would be off limits for oil drilling, campaign spokesman Andrea Saul said, "Governor Romney will permit drilling wherever it can be done safely, taking into account local concerns."

Jerry Nelson is a nationally recognized photojournalist who travels the country seeking out people, places and things that are working to make a positive difference. To learn more about Nelson and his work, click here.

### At Stanford forum, experts say natural gas plays mixed role in America 's energy future

Contra Costa Times (Walnut Creek, CA) - Thursday, June 14, 2012

Author: Dana Hull dhull@mercurynews.com

The United States is awash in natural gas, thanks to a recent boom in a controversial drilling technique known as " fracking ." But the flood of low-cost natural gas has raised all sorts of questions about America's energy future.

Some experts fear that fracking will result in widespread groundwater contamination, while others worry that a temporary supply of cheap natural gas will delay development of solar, wind and other renewable energy technologies.

On Wednesday, hundreds of energy leaders gathered at Stanford University for a half-day forum on U.S. energy policy sponsored by the Hamilton Project at the Brookings Institution. Among those attending were Facebook COO Sheryl Sandberg and former Treasury Secretary Robert Rubin.

Hydraulic fracturing, or fracking, is a way to extract natural gas by drilling wells and injecting large quantities of water and chemicals, which create pressure that moves the natural gas. Environmentalists have raised concern that the recent drilling boom has contaminated drinking water, and New York Gov. Andrew Cuomo's administration is trying to limit the places in that state where fracking is allowed.

"Fracking itself does not contaminate drinking water," said Kathleen McGinty, a former director of the White House Council on Environmental Quality, during one of the day's panel discussions. "But improperly developed wells have contaminated drinking water."

Natural gas is also making it harder for renewable forms of energy such as solar and wind, which are more expensive, to compete. While the cost of solar panels has dropped dramatically in recent years, natural gas is still cheaper, having fallen by more than two-thirds over the past four years.

Some experts call natural gas a "blue bridge to a green future" because it produces far less carbon emissions than coal. But Jim Rogers, the CEO of Duke Energy, warned the Stanford gathering that natural gas, while cheap now, has historically been volatile and that the price is certain to rise.

"Ben Franklin said there are two certainties in life: death and taxes," said Rogers. "To that, I would add the price volatility of natural gas."

Utility companies such as Duke, which is based in Charlotte, N.C., take a portfolio approach to their energy mix. Duke gets its electricity from hydropower, nuclear, natural gas, coal and renewables. The company is retiring older coal plants and is investing in solar and wind.

"Because gas is so cheap and cleaner than coal, there's a lot of pressure from state regulators to build all gas, all the time," said Rogers. "My number one fear is that we'll be pushed to build natural gas at the expense of solar and wind."

Venture capitalist Vinod Khosla said that energy innovation happens at the fringes and that startups will disrupt the energy sector. He also reminded the crowd that failure, such as the bankruptcy of Fremont solar maker Solyndra, is all a part of taking risks.

"You win big or you lose, but there's no such thing as winning small," said Khosla. "One loser like Solyndra doesn't constitute proof that the technology doesn't work."

Many agreed that the U.S. government needs to set some kind of federal tax on carbon emissions to further drive the market for renewable energy. But that policy will be difficult to enact because so many states, particularly in the South, are heavily dependent on coal for their electricity.

"I look at what's likely to happen in the next five years, and I don't think we're going to see a carbon tax," said Khosla.

Contact Dana Hull at 408-920-2706. Follow her at Twitter.com/danahull.

## Summit agrees to lease town mineral rights

Enterprise-Journal (McComb, MS) - Thursday, June 14, 2012

Author: Matt Williamson, Enterprise-Journal

Summit officials on Tuesday adopted a resolution to lease mineral rights to an oil company that is looking to drill in the area.

The town council voted 3-0 with Councilman Jake Gazzo absent to lease 16.8 acres to Shreveport, La.-based PAR Minerals Exploration LLC for three years at \$150 an acre and receive a 3/16 share of royalties from oil taken from town property.

PAR's Nicki Boland presented \$2,520 check to the town on Tuesday.

PAR officials want to drill in an ununitized and largely unexplored oilfield around town that isn't connected to the nearby Little Creek, Lazy Creek or McComb oilfields, and is considered a new play. Hydraulic fracturing, or fracking, won't be involved, officials have said.

"The town of Summit just happens to be in the prospect area," she said.

Boland said PAR officials are still deciding on the most effective locations to put oil rigs.

She noted that drilling won't be done within 200 feet of residences. The company will likely rely on directional drilling to retrieve oil located in places it cannot put a rig, Boland said.

"It's just not feasable to drill next to anybody's house, barn or shed," she said, noting that rigs will have sound-dampening fences put up around them once drilling commences.

"Right now, we're leasing numerous sections and (company officials) will decide where the units will be all over the area," Boland said.

In other business, the council:

- Approved the payment of \$394,557 to Dickerson & Bowen and \$16,115 to GP engineering for work on the bond-funded street improvement project.
- Approved planning commission recommendations, including Krandall Howell's request to demolish the old Jackson Cleaners building on Robb Street and build a new building, to repair the sidewalk in front of Head Turners Salon on West Railroad Street, to reopen a stairway to the basement of the Head Turners and Peaches & Pearls building, and to repair the back porch and loading dock at the store.
- Approved the transfer of old police radios to the fire department.
- Authorized travel for police officers Percy Andrews and Gary Dickerson to attend continuing education classes in Natchez, and travel for Police Chief Kenny Cotton to attend the Summer Educational Conference in Biloxi and the Mississippi Municipal League convention in Biloxi, all this month.
- Approved police overtime for hours worked during the recent Click-it or Ticket seat belt enforcement campaign.
- Heard from Ken Hood, a former classmate of Mayor Percy Robinson who recently moved back to area. "I felt joy in my heart when I came back to Summit and saw the improvements. ... You have a very progressive city," he said.

# Fracking trucks hauling sand

Harrisburg Daily Register (IL) - Thursday, June 14, 2012

Author: Jim Efstathiou Jr; Bloomberg News

Truck drivers hauling water and sand to U.S. oil and natural gas shale wells can't extend their daily on-duty hours by using an exemption targeted for special oil field service equipment, the government said.

Time spent waiting while water and sand are unloaded at well sites counts toward the maximum 14 hours a day that a truck driver can work, the Transportation Department said in a rule clarification to the Federal Register. Some drivers may be using an exemption for equipment such as pumps or gas separators that let operators subtract from the limit the time waiting for gear to be unloaded, said Boyd Stephenson, director of hazardous materials policy at the Arlington, Va.-based American Trucking Associations.

The U.S. agency is targeting a boom in natural-gas drilling by hydraulic fracturing, a process that may require hauling as many as 1,000 truck-loads of water and sand for every well. Limiting the exemption may force drillers to add drivers, Stephenson said.

"If you were an operator in the past that was utilizing this exemption for transporting sand and water then, yes, it means you're going to have to have more drivers," Stephenson said in an interview. "There were probably some that were utilizing this exemption for sand and water trucks in the past. How many is anybody's guess."

A growing number of industries, from ready-mix concrete mixers to water-well drillers to agricultural retailers, have obtained or sought relief from rules including limits on truckers' daily on-duty hours that the Department of Transportation announced in December. Consumer groups and the trucking association object to different parts of the rules and have gone to court to block them.

Hours-of-service exemptions were written into law for more than a dozen industries, including oil-field service equipment, before the final rule was issued.

Oil and gas discoveries in shale formations in states such as Pennsylvania and Ohio are bringing wells to rural areas that can often be reached using small rural roads not suited for heavy trucks. The anticipated expansion of drilling probably led the safety agency to issue guidance on who is eligible for the exemption, according to Henry Jasny, vice president of the Washington-based Advocates for Highway and Auto Safety.

Justin Nisly, a Transportation Department spokesman, didn't return a phone call seeking comment.

"If you're going to have thousands and thousands more sites, you're going to have thousands more vehicle trips on rural roads which have the highest fatality rate to begin with," Jasny said in an interview. "They're not changing anything in the current exemption. They're just trying to make it clear who gets which exemption."

### Town takes steps to prevent fracking - ENVIRONMENT

Penfield Post (NY) - Thursday, June 14, 2012

Author: ETHANY YOUNG byoung@messengerpostmedia.com

It has been three months since residents asked the town of Penfield to pass a moratorium on hydrofracking, and an answer may now be in sight.

In March, a group of residents presented the town board with a petition to establish a moratorium on the controversial gas drilling method.

Since that time, town leaders have taken a second look at the existing zoning code and other regulations that would apply to the practice if it were legalized in New York State, and how this could affect Penfield.

Impact The board is now reviewing the first draft of a moratorium that would suspend hydrofracking for a one-year period until the town adopts a law to ban or restrict the practice within town limits.

"That will give us more time to flesh out the details," said Town Supervisor Tony LaFountain.

The New York State Department of Environmental Conservation (DEC) is still reviewing the safety of hydrofracking and public feedback. It is expected to make a decision on the ruling by the end of the year.

Until then, local municipalities continue to not only speculate whether fracking would harm the environment if legalized, but how it would create a ripple effect in communities where it was allowed.

"I think communities are starting to get wiser about not only the direct impact but the individual impacts," said LaFountain.

Property Values Even if Penfield decides to ban the practice altogether, he added that there are other factors that must be considered on a town level.

For example, the movement of heavy trucks and machinery traveling to and from other areas where

fracking is permitted would harm roadways, create additional traffic and create a financial burden on the town if repairs are needed.

Other factors include impact on property values and the need for greater law enforcement in the event of creating a workhard-play-hard atmosphere with a new economic boom surrounding central fracking areas. Brighton took the lead in Monroe County by passing the first fracking moratorium in December 2011. Several towns and villages in Ontario County followed suit this year as others, like Penfield, decide on their course of action for the future.

The town board plans to discuss the first draft of the moratorium on June 20 and will likely hold a public hearing on the issue in July, after which the board would vote to enact the moratorium in August.

"I know we're glad that we waited to have all the facts and information before we did it," LaFountain said.

# Madigan sends drillers message with 'fracking 'bill

News-Gazette, The (Champaign-Urbana, IL) - Sunday, June 3, 2012

Author: Tom Kacich

Michael Madigan may be unable to pass a much-needed overhaul of Illinois' phenomenally underfunded pension systems, but he sure knows how to put a scare into some oil and gas drillers in southeastern Illinois.

While the speaker of the House was signaling last Thursday that he had given up on resolving the state's \$83 billion pension liability for now, a smaller drama was being played out within the Brutalist architecture of the Stratton Office Building, across the street from the Capitol.

It was another dark reminder of Madigan's reach, and his ability to influence any and every aspect of state government, even in remote counties in southeastern Illinois.

The issue was a bill sponsored by Rep. Naomi Jakobsson, D-Urbana, that dealt with the use of horizontal hydraulic fracturing (also known as " fracking ") as a method of removing oil and gas deposits from deep under the soils of Gallatin, Wayne and a few other counties generally along the Wabash River. Jakobsson's legislation arrived in the House in late April and went nowhere until late last week, when there was a burst of activity and the bill picked up and lost sponsors, and bounced around committees.

Suddenly on Thursday, the last day of the spring session, the bill got its first real House hearing. But the measure being heard was an entirely new one.

It called for a two-year moratorium on horizontal hydraulic fracturing and for the creation of a 13-member task force that would gather information and make recommendations about regulating fracking in Illinois. It was a significant break from an earlier, agreed-upon bill that got through the Senate with provisions on the disclosure of chemicals used in fracking, plus wastewater management.

House Republicans complained that the two-year moratorium was extreme, especially since the task force was supposed to issue a report by January 2013.

Supporters of the new legislation said fracking was potentially dangerous, needed regulation and, citing experiences in other states, that Illinois should be proactive rather than reactive.

Horizontal hydraulic fracturing is a legitimate health and safety issue, but the real question is why it took until the last day of the session to move the bill. And why was it moved about nine hours before the scheduled adjournment of the Legislature when there was virtually no chance for it to pass through both the House and Senate?

Opponents wondered why there was a sudden call for a moratorium after Jakobsson said she had been negotiating with the oil and gas producers and various environmental groups for about two years.

"It seems like this is moving fast, and it's an industry that is creating investment and jobs downstate," said Rep. Pam Roth, R-Morris. "This moratorium is going to kill investment and jobs in an economy and at a time when that is ludicrous in this state. A two-year moratorium is way too long.

"I don't know the difference between a fracking well and a wishing well, but I do know jobs. And this moratorium is going to kill a lot of jobs."

Brad Richards, the executive vice president of the Illinois Oil & Gas Association, said that more than \$100 million had been spent on leases in the area.

"There's millions and millions of dollars on a weekly basis being spent to lease for oil and gas in places like Wayne, Hamilton, Saline and Gallatin counties," Richards told members of the House Environmental Health Committee. "That, with this moratorium, will absolutely cease. They will go home."

He said the new search for oil and gas reserves "is the best economic news that southeastern Illinois has had in a very, very long time, and a moratorium of any length will destroy it. The implication here is that there would be billions of dollars of investment and tens of thousands of jobs. I just cannot believe that we would seriously contemplate this moratorium."

Not only did the House committee consider the moratorium; it endorsed it with an 11-6 vote.

That, however, was as far as the fracking bill got, at least for now. The full House never took up the bill Thursday night and the legislation remains on hold. The earliest anything will happen now is the fall veto session, which is about when negotiators on both sides figured there would be action anyway.

But a message was delivered to the oil and gas drillers more than 300 miles south of Madigan's southwest side district in Chicago: Don't think we're not watching you. Work with us or we can hurt you.

Pat Quinn may be the governor of Illinois, but no one wields power like Michael Madigan.

Tom Kacich is a News-Gazette editor and columnist. His column appears on Sundays and Wednesdays. He can be reached at 351-5221 or at kacich@news-gazette.com. Caption: MADIGAN

# Objective Marcellus shale gas data at Fractracker .org

Philadelphia Examiner (PA) - Thursday, May 24, 2012

Author: Robert Magyar

Emotions run hot about anything to do with shale gas in the state of Pennsylvania. Adherents and industry front groups preach the Marcellus will cure the state's economic ills; make it an energy leader and all without the slightest harm to the environment or the state's water systems. Opponents to hydraulic fracking scream it is ripping the earth open, poisoning waters and the worst example of alleged corporate greed they can find.

Yet Pennsylvania does have one source of transparent records with data organized for anyone who wants to understand what is actually happening in the Marcellus to look at. It's called FracTracker.org having been established several years ago by the University of Pittsburgh. It appears to date to be one of the very few shale gas databases easy to access, free of charge and without bias or political agendas which can help people make up their own minds about US shale gas development pros and cons.

According to its web site, "FracTracker is dedicated to providing a common portal for understanding issues and impacts related to the global shale gas industry through the sharing of data, images, video, and relevant stories, and by facilitating the creation of maps, graphs, and charts that deepen that understanding." FracTracker.org is funded by the Heinz Foundation and the William Penn Foundation. Partners include Rhiza Labs, the Community Foundation for the Alleghenies and the Foundation for Pennsylvania Watersheds.

The web site contains a wide variety of interactive tools organized in the following categories: Maps, Data Tools, Pictures, Articles, Facts, Calendar, Resources and Data Index. Want to know the number of shale gas wells being operated by what oil and gas company over the last several years? Or how many drilling permits have been issued to date for the Delaware River basin? You can see the information and much more at Fractracker.org.

Two of the researchers for the group are Samantha Malone and Matt Kelso. Both are easy to contact and willing to help with your questions. Malone believes in the big picture view of shale gas development including the positive impacts for the people and communities within the Marcellus while being ever mindful of tracking both the upside and downside aspects. She believes the data as it comes in will provide the best long term roadmap for the future.

Recently their web site tool sets have been expanded to include other shale gas plays such as in Texas or Fayetteville, fracking moratoriums in New York State and what is happening in Ohio and West Virginia.

Some key data remains elusive such as an accurate view of what drilling company has been hit with environmental/operational fines. Or timely actual production data as to who has produced exactly how much shale gas by operator by well. FracTracker's Kelso states this data can be very difficult to accurately organize and present based on the state's records formats. While he gives the Pennsylvania state agencies in charge of keeping track of such data the credit of doing a much better job, one cannot overlook how the state's record keeping in these areas was not fully prepared for the onslaught of shale gas operators allowed to come into the state and begin drilling back in 2007 and 2008.

The citizens of the state of Pennsylvania owe a large thank you to FracTracker.org; the University of Pittsburg along with the Heinz and William Penn Foundations for taking a fact based records driven approach to create a database without charge for any and all citizens to look at so as to better understand a complicated energy issue.

Somewhere between the shale gas industry hype that 'Today's fracking technology has been used for more than 60 years without any problems' to the non-scientific fear mongering claims, 'Fracking causes earthquakes', lies real data which reveal what is happening. Today, FracTracker.org represents perhaps the best place to go and find out.

Note: Writer holds no US securities in any shale gas development companies, is not an alumni of the University of Pittsburgh or a member or donor to either the Heinz or William Penn Foundations. He does not have any financial arrangements in any form or manner with any of the people or entities listed in this article.

Visit Fractracker.org main web site at: http://www.fractracker.org/

To learn more about the Heinz Foundation, go to: http://www.heinz.org/index.aspx

To learn more about the William Penn Foundation, go to: http://www.williampennfoundation.org/

#### Shale gas realities continue to disrupt the hype

Philadelphia Examiner (PA) - Wednesday, May 23, 2012

Author: Robert Magyar

Bad news keeps coming to the shale gas industry. Chesapeake Energy and its founder Aubrey McClendon are embroiled in management and financial turmoil which is shaking the company to its core. It's frantically maneuvering to sell off asset base to pay off billions in debt. Its market cap is disappearing quickly while its founder is on the defensive. Shareholders are in revolt. The SEC is investigating the company's financial arrangements as Moody's and Fitch have downgraded the company's credit rating.

The company is the 2nd largest shale gas development company in North America.

Legendary Oklahoma oil and gas man, T. Boone Pickens sold his 571,000 shares of Chesapeake in the first quarter of this year completely eliminating his financial position in the company. Vermont's governor just signed into law H.464, the nation's first outright state ban on shale gas fracking based on the unknown environmental impacts. North Carolina now has a moraturium in place until 2014 as it attempts to put proper regulatory and oversight programs in place.

Boone Pickens has been known to cut and run on energy plays in the past such as his famous national wind energy program. As an industry insider he says not to give up on natural gas/shale gas but one has to take notice his money is no longer in Chesapeake Energy. He is a successful oil man by trade having spent a lifetime understanding the complicated economics involved in drilling rigs, proved versus unproved shale gas reserves, extraction costs and price to market drivers.

Vermont most likely does not have any meaningful amounts of shale gas as it lies outside the Marcellus Shale region so its shale gas drilling ban is largely symbolic. But a drilling ban in any form or format sends chills up the spine of the oil and gas industry as they understand when an 'green state' like Vermont says no to hydraulic fracking, its sends a powerful message to Americans and to a multitude of other states officials grappling with the shale gas boom, rush and hype high pressure tactics of the industry.

Even given Vermont's mostly symbolic ban, shale gas industry front groups were quick to condemn the state. The American Petroleum Institute said Vermont was pursuing an "irresponsible path that ignores three major needs: jobs, government revenue and energy security." America's Natural Gas Alliance said the Vermont law was "poor policy that ignores fact, science and technology." It said natural gas is being produced "safely and responsibly."

North Carolina may never be a 'powerhouse' of shale gas but its officials watching and learning from developments in Pennsylvania are clearly taking their time as in no rush, however much shale might be in the state is not going anywhere anytime soon.

So despite claims of America becoming "The Saudi Arabia of natural gas" along with the rallying cry of the pitching the unproven idea the United States has '100 Year Supply of Natural Gas", reality keeps intruding on the hype.

- \* New York State continues its moratorium on shale gas drilling after watching Pennsylvania's open arm welcome of several combined shale gas technologies still emerging and not yet fully understood. A legacy of coal mining environmental damage such as what is seen in the greater Hazelton, PA may well have been on NYS official's minds.
- \* Last year, a series of ever increasing earthquakes occurred within close proximity of two massive toxic water shale gas reinjections wells in the Fayetteville Shale formation. When the reinjection operators voluntarily stopped, the earthquakes subsided. A similar situation involving seismic activity near reinjection wells occurred near Cleveland, Ohio also last year.
- \* Then January 2012, the federal Energy Information Administration cut its estimate of unproved shale gas reserves by more than 60% from 411 Tcf as in trillion cubic feet to 141 Tcf as it finally was able to model estimates on more actual shale gas production data.

No one is going to hear these developments discussed objectively by the shale gas industry's network of aggressive and well-funded front groups such as the Marcellus Shale Coalition.

Oil and gas drilling has always been speculative in nature and America needs all the natural gas it can to keep a vibrant economy. There is little doubt shale gas will play a role in the energy mix. But the manic rush and promotion of all things shale gas upside and 100% benefit without a hint of downside as promoted by the industry has hurt the industry's standing.

Shale gas industry executives might want to give real consideration that how they act and what they say often makes them their very own worst enemy.

Note: The writer does not own shares of Chesapeake Energy or any other shale gas development U.S. securities and has no financial arrangements of any kind with any of the entities or people referenced in this article.

To learn more about Vermont's fracking ban, North Carolina's actions along with New York State's drilling moratorium, go to these sites:

http://www.vermont.gov/portal/search.php?q=H.464+&cx=006058638614977388247%3Ap4bv-srvwog&cof=FORID%3A9&Go.x=9&Go.y=15

http://www.fayobserver.com/articles/2012/05/22/1179400?sac=fo.business

http://www.theithacajournal.com/article/20120522/NEWS01/205220392/Upstate-communities-consider-frack-bans?odyssey=mod%7Cnewswell%7Ctext%7CLocal%20News%7Cp

# With Chesapeake Energy in chaos, the Marcellus Shale Coalition remains silent

Philadelphia Examiner (PA) - Monday, May 21, 2012

Author: Robert Magyar

Chesapeake Energy, the second largest shale gas development company in North America, is getting hammered and roiled in financial and senior management scandals. Aubrey McClendon, who founded the company, has been stripped of his role as chairman. Moody's and Fitch have downgraded the company valuation and debt ratings while its stock has plummeted from a 2009 high of \$61.00 to an all-time low of \$14.74.

The SEC has opened an investigation of the company's financial practices. It's struggling to sell off assets as it faces a \$10 billion dollar operating shortfall. Yet as all of this has been unfolding, the Canonsburg, Pennsylvania based shale gas industry front group, the Marcellus Shale Coalition remains mute and silent on Chesapeake Energy's trouble while continuing to preach to the willing and naïve all is well with shale gas development in the northeast United States.

Chesapeake Energy can thank itself for much its current woes which result from its own hand in making strong, aggressive, and overly optimistic yet to be proven claims about amounts of shale gas and the realistic operating costs to extract the gas based on the prices the market was willing to pay for it. It failed to disclose massive borrowings by its founder or the hedge fund he personally ran trading in the very product the company produces.

Back in 2006/2007, the company and its founder were part and parcel of the formation of the original Marcellus Shale Committee which then changed its name to the Marcellus Shale Coalition. To quote from the Coalition's newly revised and revamped web site, "We provide in-depth information to policymakers, regulators, media, and other public stakeholders on the positive impacts responsible natural gas production is having on families, businesses, and communities across the region."

Today, there is not a single reference by the Coalition on their web site regarding the financial chaos Chesapeake Energy is undergoing or what it means to the shale gas industry in general. It's a classic example of what critics charge is the Big Oil and Gas industry's constant attempts to always sell the upside of what they do while downplaying, dismissing and attacking those who question all the 'good news only' of the industry.

The "We" in the mission statement of the Coalition is the more than 90 plus businesses which directly benefit financially from any and all things shale gas extraction in the Marcellus. The "positive" in its mission statement looks to insure no mention of one of its largest and founding member's financial chaos and management turmoil.

These companies and their front groups, as do most of the oil and gas industry, spend very big bucks lobbying, marketing and doing massive amounts of public relations. This is done to create the most favorable economic environment for shale gas extraction. With it, to send a constant background

message shale gas is good for US economy, it causes no environmental damage, promotes energy independence and job creation. Its done in a way to appear to be community or grass root based and of course, claimed to be completely objective and without bias.

Yet at the end of 2011, two reports were released which caught little attention but said a lot about the state of today's shale gas industry's increasing chaos and yet to be proven claims:

- \* In November 2011, Common Cause, the non-profit, non-partisan citizens advocacy group released a report stating, "A faction of the natural gas industry has invested more than \$747 million as part of a 10-year lobbying and political spending campaign to persuade federal authorities to ignore the dangers of hydraulic fracturing, or "fracking," a rapidly expanding but poorly regulated method of tapping gas reserves."
- \* In November of the same year, the federal Energy Information Administration significantly decreased their estimates of unproved shale gas reserves in the Marcellus northeast US formation from 411 Tcf as in trillion cubic feet to less than 141 Tcf, a startling 60% decrease over its former reserve estimates and those of the shale gas industry front groups along with Penn State's high profile geologist, Professor Terry Engelder.

Despite all the industry's non-stop spin and PR message control, it's clear the bad news is making the American public ever more wary of its claims. While America needs natural gas and shale gas will play a role, the lesson looks to be no one energy source is all upside and devoid of downside. This is true of life in general and something the industry just might learn to come to grips with in the future.

Note: The writer does not hold any Chesapeake Energy stocks or any U.S securities in companies involved in shale gas development.

To visit the Marcellus Shale Coalition web site, go to: http://marcelluscoalition.org/

To see the Common Cause report on oil and gas industry lobbying, go to: http://www.commoncause.org/site/pp.asp?c=dkLNK1MQlwG&b=7868571

To see the Energy Information Agency's 2011 report on shale gas reserves, go to: http://www.eia.gov/

## Dallas oil firm wins major judgment in Eagle Ford Shale case San Antonio Business Journal by James Aldridge, Web Editor

Date: Tuesday, June 12, 2012, 5:40pm CDT

James Aldridge Web Editor- San Antonio Business Journal

A South Texas jury has awarded Longview Energy Company a verdict in the amount of \$162 million after they determined that two corporate directors abused their authority and wrongly earned hundreds of millions of dollars from the Eagle Ford Shale.

The case, Longview Energy Company vs. The Huff Energy L.P., Riley-Huff Energy Group LLC, William R. "Bill" Huff, and Rick D'Angelo, was decided in the District Court for the 365th Judicial District in Zavala County, Texas.

Watts Guerra Craft LLP represented Longview in the litigation. Dallas-based Longview is an oil and gas company that is targeting the Eagle Ford Shale. The jury found that the directors breached their fiduciary duties owed to the company, defrauded the company and stole and misused confidential and proprietary information.

The Eagle Ford Shale is a oil and natural gas field in South Texas that spans 24 counties. The northern zone primarily produces oil. The southern zone primarily produces natural gas and the central zone produces natural gas liquids like propane, ethane and butane through the use of hydraulic fracturing.

Waste injection, CCS, geothermal pose quake risks; frack hazard lower -- report

Mike Soraghan, E&E reporter Greenwire Published: Friday, June 15, 2012

Hydraulic fracturing presents little risk of causing damaging earthquakes, a government study released today concludes, but earthquakes can be caused by other oil and gas activities, particularly injection of waste from drilling.

Carbon capture and storage (CCS) and geothermal energy projects can also lead to man-made earthquakes, says the report from the National Research Council.

The report suggests implementing "best practices" for avoiding such earthquakes and having regulators make plans for when they begin to occur.

"No mechanisms are currently in place for efficient coordination of governmental agency response to seismic events that may have been induced," the report says. "No best practices protocol for addressing induced seismicity is generally in place for each energy technology."

Sites in the United States and Canada with documented reports of quakes caused by or likely related to energy development from various energy technologies. The reporting of small induced seismic events is limited by the detection and location thresholds of local surface-based seismic monitoring networks. Click to enlarge. Map courtesy of National Research Council.

The report will be the subject of a hearing next week in the Senate Energy and Natural Resources Committee. Chairman Jeff Bingaman (D-N.M.) requested the report two years ago.

U.S. Geological Survey scientists raised the profile of the issue earlier this year with research finding a "remarkable" rash of earthquakes in the middle of the country that they linked to underground injection of waste brine from oil and gas production (EnergyWire, March 29).

Some state officials have shut down injection wells after earthquakes. But other states have rejected USGS findings linking oil and gas waste injection in their states to earthquakes (EnergyWire, April 16). Scientists are also looking at whether two recent earthquakes near Nacogdoches, Texas, were caused by oil and gas waste injection (EnergyWire, May 21).

Oil and gas producers are exempt from federal environmental laws designed to prevent industrial waste injection wells from triggering earthquakes (EnergyWire, March 22).

Bingaman sought the study of "induced seismicity" because he was troubled that the kind of fears triggered by earthquakes could shake public confidence in the country's growing energy industry.

"Much of public opposition to the deployment of advanced energy technologies in the United States stems from a lack of clear, trusted information regarding the safety of those new energy facilities for the local communities that are their neighbors," Bingaman wrote in a June 2010 letter to Energy Secretary Steven Chu, asking for interagency cooperation on such a study.

The study committee began meeting in September 2010, holding meetings in Washington, Texas and California.

Hydraulic fracturing is a drilling practice in which large amounts of water are jammed underground at high pressure to blast apart deep rock formations that then release oil or gas. Production from shales like the Marcellus in Pennsylvania and the Bakken in North Dakota are dependent on a form of fracking that uses millions of gallons of water and very high pressure.

But the study notes fracking itself has been linked to a low number of earthquakes that could barely be felt at the surface.

"The process of hydraulic fracturing a well as presently implemented for shale gas recovery does not pose a high risk for inducing felt seismic events," the report says.

But a lot of that fluid comes back up as brine, even more toxic than it went down. Some can be reused, but eventually most is injected underground. As drilling is becoming more common in the country amid a domestic drilling boom, a lot more water is being injected than in previous years. Because large amounts of water are injected for a long time, injection can increase pressures underground. In rare circumstances, that can cause earthquakes, the report explains.

CCS could also cause earthquakes because it also involves injecting large amounts of fluid, the report says. But the study notes that the seismic potential of CCS isn't well-understood because there are no large CCS projects in operation.

The report says the earthquake potential of geothermal projects appears to be related to fluid balance considerations and temperature changes produced in the subsurface. And different forms of geothermal resource development appear to have differing potential for causing earthquakes.

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"Strive not to be a success but rather of value." Albert Einstein